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AUTHOR Bain, Trevor
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ABSTRACT

Addressed to those in the manpower field (manpower program planners, practitioners, researchers, and policy makers) currently engaged in work requiring knowledge of labor market functions, this report utilizes data synthesized from a decade of research studies and development projects sponsored by the Office of Manpower Research and Development (OMRD). Study goals are identified as presenting: the principal issues related to labor market activities associated with employment; a synthesis-analysis of the research development literature relative to these activities; and alternative policy approaches arising from the literature reviewed. Presenting an overview of labor markets and manpower forecasting, this report traces the operation of the labor market from job search to placement and promotion. Specifically, the seven chapters deal with such items as: differing labor markets (macro, micro, dual, rural, urban); the search for work (techniques and programs); labor market information (intermediaries, sources, improvement efforts); selection and entry (formal, informal, screening, programs); internal labor markets (theory, promotion, discrimination, job redesign); mobility (demonstration projects and agricultural migration). In addition, this report presents a literature bibliography and a short summary of major published sources of labor market information. (Author/JC)

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LABOR MARKET ANALYSIS: A REVIEW AND ANALYSIS OF MANPOWER RESEARCH AND DEVELOPMENT

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Trevor Bain

Center for Policy Research, Inc.
475 Riverside Drive
New York, N. Y., 10027

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This report has reviewed, synthesized and analyzed the findings of completed and ongoing research and development work sponsored by the Manpower Administration, and related literature that has explored the operation of the labor market. The report presents an overview of labor markets and manpower forecasting and traces the operation of the labor market from job search to placement and promotion. The findings are interpreted for its usefulness to the Department of Labor, other Government agencies, manpower planners and practitioners, elected officials, educators, employers, unions and researchers. Includes a bibliography of the literature on the subject and a short summary of major published sources of labor market information.

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INTRODUCTION

The term labor market analysis is broad enough to include any topic that deals with wages and employment. A complete investigation of the literature would be a monumental undertaking far beyond the objectives and resources set for this project. A much more modest goal was undertaken. Labor market analysis was defined for purposes of this investigation to include those topics directly related to job search and employment. The literature reviewed is primarily a decade of research studies and development projects sponsored by the Office of Manpower Research and Development (OMRD), Manpower Administration, U. S. Department of Labor (DOL). In some areas investigations undertaken without OMRD support which give perspective to OMRD studies are included. The author has no doubt that other students of labor market analysis would include additional literature in a similar report. Consequently, such topics as wage determination, labor force participation, and international experience are notably absent from this report. This approach has not severely retarded an investigation of labor market analysis, since the OMRD literature alone has been responsible for important contributions to the field.

The study reported here has three goals:

1. To present the principal issues related to labor market activities associated with employment

2. To present a synthesis-analysis of the research and development literature as it relates to these activities

3. To present alternative policy approaches arising from the literature reviewed.

This report is addressed to those in the manpower field--manpower program planners, practitioners, researchers and policy makers--currently engaged in work requiring knowledge of how the labor market functions. It is hoped that the research and development work presented and discussed in this report will provide information which can be helpful to them in accomplishing their manpower program objectives.

The sequence of chapters provide the reader first with an overview of the report and then an overview of labor

markets. The succeeding chapters trace the worker through the labor market from job search to selection and promotional opportunities.

I. OVERVIEW

Labor Markets

Workers and employers relate to the labor market as weekender should to a walk in the woods. He knows he is the forest, however, he is concerned with each flower, sh and insect. Workers have their own unique characteristic and they differ by age, sex, race and skill. Employers a have specific requirements. Both, however, are in the la market. The manpower planner is like the stroller in the woods; he must understand the general environment of the market while he is aware of individual worker and employe characteristics.

Research into the complex nature of the labor marke has focused on four areas: the inflation/unemployment tr off, dual labor markets, job search, and internal labor markets. The relationship between inflation and unemploy ment, known as the Phillips curve trade-off, and the way which people search for jobs has been explored. Some of research has explored the role of manpower programs in lo ing the pressure on prices as the economy moves towards f employment. Researchers have suggested that better place effective occupational guidance, and training in high dem occupations contribute to a smoothly functioning labor ma and economy.

Dual Labor Markets

Low wages and frequent unemployment for some member the labor force might be explained by the dual labor mark concept. Proponents of this idea suggest that the labor market is segmented into a primary and a secondary market The primary market is characterized by permanent employme high wages and job security. In contrast, the secondary market offers only erratic employment, low wages and litt job security.

While manpower programs by themself cannot be expec to eliminate the employment deficiencies of the secondary market it is important for manpower planners to deal with the problems that the dual labor market emphasizes. Rese results indicate that some youth and new labor force entr move between markets but that prolonged employment in the

secondary market results in negative attitudes towards emp
ment. Manpower programs aimed at moving workers into prim
markets through guidance activities, extensive general lab
market information and training should be encouraged.

Urban and Rural Markets

The research distinguishes between urban and rural markets. Urban markets are divided into the center city a the suburbs based on transportation costs and access to jo information. There are also different kinds of urban labo markets based on types of industries, sources of labor and potential and past growth. Suburban markets develop as industry becomes based in the suburbs and workers are hire from the surrounding communities. In rural markets increa employment for local residents does not occur when new ind initially relocates. New firms either relocate workers o attract them from outside the area, often leaving the loca pool unaffected.

Forecasting

Several conceptual and statistical models of the la market have been developed. Forecasting models are most reliable when they concentrate on a specific segment of t market and when they are developed at the state or region levels. National models are less applicable to local nee while small models are too limited.

Measurement

A few OMRD projects have focused on ways to measure labor market. One important technique for measuring labo market imbalances involves the use of the number of job openings, or the vacancy rate.

The Search for Work

Job search is a labor market process which is influ by the presence of openings, the costs involved, and the behavior of those looking for work. Friends and relative are the primary sources of job information for most worke The Employment Service (E.S.) serves as the most active s of information for groups with limited contacts and knowl of alternatives.

Labor Market Information (LMI)

There is considerable job and general LMI currently available at national, state and local levels, some of it unpublished. Quantitative data have been used for policy making, research, internal agency control, and monitoring. The research suggests that there is a need for strengthened labor market information for local planners, firms, and job seekers. One suggestion is for a central agency, either at the regional or state level, for gathering, evaluating and distributing this information. A considerable body of knowledge has been built up and is contained both in OMRD projects as well as various other sources, which can be used as guidelines for systematizing the delivery of LMI.

The Employment Service (E.S.)

The E.S. has recently experimented with the provision of labor market information to job ready applicants exposing them to available job opportunities prior to screening by an interviewer. The E.S. has also reemphasized the need to devote more attention to employers. It has been suggested that the length of time with the firm is an appropriate measure for evaluating placements.

Selection and Entry

Licensing is a barrier to employment. Since requirements differ by occupation among states and often within states, licensing restricts mobility and favors the job opportunities of local residents.

There are several ports of entry into the skilled trades--apprenticeship, "stealing the trade", and learning the trade in a non-union shop. Most workers enter the trades through informal training. Apprenticeship requirements and their enforcement differ widely among the crafts and depend on competition and the labor market. Apprenticeship has in the past served as a barrier to the employment of women and non-whites. Age limitations for enrollment in a program have meant that women returning to the labor force have been too old to qualify. Programs to increase the number of minority apprentices have differed across the country. Private groups that established a good relationship between the community and the industry have been most effective and apprenticeship outreach programs have shown sizable increases in minority participation. There is strong incentive for moving all craft workers through the appropriate program since this often ensures stability of employment and promotion.

Vocational education does not provide automatic entrance to occupations. Employers feel that training is too far removed from their requirements. The current state of the labor market, including that for college graduates, serves as an impetus to support vocational education that is adaptable to market requirements.

Internal Labor Markets

Firms have their own internal markets within which most jobs, other than entry and professional, are filled. It takes some time for workers to become established within a firm. Prior to this there is considerable mobility. Once work establishment is gained there is an incentive to remain with the company for promotion is more often based on seniority and possession of company oriented characteristics than on education alone.

Promotion lines are effected by technology and the production process. Most firms have short promotional ladders, where they are enunciated at all. Without continuous outside subsidies many firms are reluctant to engage in upgrading and job creation. Policy efforts may succeed if there is continuous support and orientation so that the firm understands the connection between upgrading and its primary interest in discipline and productivity.

The establishment of clearly defined hiring, staffing and promotion policies reduces discrimination by supervisory personnel. Manpower practitioners should assist in the establishment of these policies where the firm requires assistance.

Mobility

OMRD has supported research and development projects dealing with geographic mobility. Relocation requires more assistance than the provision of job opportunities and economic incentives. Successful relocation requires aiding workers and their families in an adjustment to the new community through housing, educational facilities and social activities.

II. LABOR MARKETS

This chapter, an introduction to labor markets, reviews some of the major concepts and issues in labor market analysis. OMRD studies have focused on empirical work aimed at a better understanding of particular, segmented markets. Considerable support has been given to studies of the disadvantaged in segmented markets. OMRD, however, has sponsored a small number of conceptual studies. Two of these are discussed in this chapter--the inflation/unemployment trade-off and dual labor markets.

Macro-Labor Markets

The principal issue with regard to macro-labor markets is the relationship between economic growth and employment. The demand for labor is derived from economic growth and, consequently, activities in the labor market are dependent on cyclical changes in the economy. Unemployment is the major measure of the state of the labor market.

Hall (48), in a review of Keynes' definitions of unemployment, found that some level of frictional unemployment is characteristic of all labor markets. Involuntary unemployment is possible when labor markets are in equilibrium but supply exceeds demand. There have been two explanations for involuntary unemployment. Either there are barriers among labor markets due to geography, skill differences, and institutional barriers, or, there are barriers in the labor market because of the absence of job information. Consequently, job search must take place over time (55,56,57). The removal or lowering of barriers will reduce involuntary unemployment and the inflation/unemployment trade-off. The debate over what efforts will reduce barriers is as heated as any in the literature. Some authors argue that barriers can be reduced through: (1) increased job matching services to speed placement and reduce turnover, (2) vocational counseling and employment opportunities for youth, (3) geographic mobility assistance, (4) fee-splitting between public and private agencies so they can cooperate in achievement of a flexible nation-wide placement system, and (5) training programs (54,22,73). Others argue that there are serious doubts concerning the usefulness of most of these efforts. If workers, by and large, find jobs by consulting friends or through direct inquiries then there is relatively little use for the public employment service as

presently constituted and the benefits of manpower training programs have yet to be completely established (48). Hall (48), however, concludes that if one measures the benefits from training as increased incomes of trainees after training, incomes often exceed by several times the estimated cost of earnings foregone during training and the operating costs of training programs.

The Office of Manpower Research and Development has supported a major research effort in the area of macro-labor markets. The focus of this research conducted by the Urban Institute has been on the growth side of the business cycle and the equilibrium adjustment process during inflation (55, 56,57). It has concentrated on the unemployment/inflation trade-off, known as the Phillips curve, and the possibilities for a reduction in both the trade-off and the unemployment rate. Holt and his colleagues devoted considerable attention to the identification of policies and programs that could shift the inflation/unemployment trade-off. They called for broad manpower attacks rather than individual targets although they recognized that there is occupational and geographic segmentation in the labor market. Throughout this study it must be kept in mind that there are in reality a host of separate labor markets and comments about one market may or may not be applicable to others. Where market characteristics are not explicitly tied together the reader is cautioned against generalizing from the characteristics of a single market.

During the time that the Urban Institute was engaged in its research, considerable debate occurred concerned with the Phillips curve and whether a precise meaning could be attributed to the inflation/unemployment trade-off. The concept of a "natural rate" of unemployment began to replace the Phillips curve. Regardless of the debate concerned with alternative conceptual approaches, manpower programs still have a policy position in the reduction of unemployment and the length of job search.

Micro-Labor Markets

The recent conceptual work on individual labor markets has focused on explanations for unemployment either because of barriers in the market encountered during the job search or because of non-competing groups. The conceptual issue is stated by Woglom (172). In perfectively competitive models of labor markets, employers and potential employees are assumed to know perfectly the one market clearing wage. Once it is recognized conceptually that there are a number of possible wages at which transactions may take place, and that workers are not able to find all of the possible wages at a

single time, research attention shifts to how labor market participants make transactions. Search models analyze how labor market participants make these transactions and most of the work draws upon two articles by George Stigler (138, 139). Mortensen (61) and Gronau (47) explore how the rational behavior of unemployed workers will lead to frictional levels of unemployment at labor market equilibrium since it is rational not to accept the first available wage offer. On the employer side, following the work of Phelps (110) et. al. and Mortensen (61), given the dispersion of acceptance wages of applicants of varying quality, it is not desirable or possible to equate the product of an employee to the wage rate. Consequently, the search for the most productive workers involves a gradual buildup of personnel until the firm reaches its desirable level of employment.

An introduction to labor markets would not be complete without reference to human capital theory. This approach, pioneered by Becker (12) presents an alternative method to understanding many aspects of the labor market. The core of the theory which was expanded by Mincer (86), is that, theoretically, workers and firms make incremental investments in their own training based on expected discounted returns that accrue over time because of the investment in human capital. Extensive use has been made of the human capital approach to investigate labor market phenomena such as job search, training and migration, although, most of the OMRD sponsored research has not employed this conceptual framework.

Dual Labor Markets

OMRD has supported both conceptual work and empirical studies in segmented labor markets. The largest view of the labor market is one in which all workers compete for all jobs based on employers' requirements and workers' personal and occupational characteristics (14). Researchers have long recognized, however, that all jobs are not freely competed for and all workers do not possess comparable characteristics. Students of the labor market such as Cairnes (17) have written about non-competing groups, the balkanization of labor markets and segmented labor markets. The most recent addition to this literature is the dual labor market hypothesis (14,27,32,38). This hypothesis provides an explanation for two events: the persistent employment at low wages of some full-time workers and, the failure of graduates of poverty programs and manpower programs to find permanent employment. This concept has found widespread acceptance in the current literature on labor markets. The hypothesis distinguishes between a primary and a secondary labor market which are defined by the basic operation of the markets and the demand for labor. Conceptualization of the dual labor market varies among authors (70).

The literature, within these limitations, divides the two markets in the following manner.

The primary market consists of firms with market power who earn substantial profits and are secure in their continuity. These firms, because of their market position, pay above average wages and offer long term employment (27). They are in a position to negotiate long term contracts with employees, often through unions, and to invest in the training of their employees who are expected to remain employed for a considerable time.

The secondary market consists of different sized firms, some of which are marginal. These firms pay below average wages and are characterized by irregular employment and high turnover. They do not offer substantial sources of union membership either in benefits or in numbers and prefer not to invest heavily in employee training. As a consequence of this division of the labor market, workers employed in the primary market receive high wages and permanent employment while those in the secondary market receive low wages and intermittent employment. Workers exposed to the secondary market may develop behavioral characteristics associated with intermittent employment.

It is difficult to test some of the implications of the dual labor market and to separate cause from effect because of disagreement in the criteria for defining dual labor markets. Several questions to be answered are: Do low wages in the secondary market lead to job instability or does job instability lead to low wages? Why do secondary market workers tend to be Black or Puerto Rican, female and not highly educated? Why should there be little or no mobility between the two markets?

A small number of tests of the dual labor market hypothesis have been conducted by Lowell (70), Flanagan (32) and Andrisani (6). Lowell (70) used New York data to test the hypothesis that secondary and primary jobs possessed different institutional characteristics. Her results were inconclusive. On the basis of job characteristics alone it appears to be fairly easy to predict a job market assignment, however, the more institutional variables stressed by the hypothesis do not appear to be significant (70). No predictive power could be attributed to either the relative size of the firm in the industry, to the job, or to the percentage of unionized employees. Lowell (70) also found a considerable degree of intermarket mobility, more up, into the primary market, than down.

Flanagan (32), in an investigation of the reasons for individual wage differences, examined both the segmented labor

market theory and the human investment approach. Segmented markets may be based not just on occupation, unionization and industry concentration but also on housing segregation which confines the urban poor to less attractive jobs either because this is all that is available to them or because this is all they can reach or learn about (38). The evidence, according to Flanagan (32), indicates that the major barrier to racial equality and economic status is lack of access to specific on-the-job training. When the employer is uncertain about the employment stability of job applicants he shifts a large portion of the training costs to the trainee or does not give training.

Andrisani (6) concentrated on the entry of youth into the market and mobility aspects of the dual labor market hypothesis. Dualism predicts little or no mobility between the primary and the secondary markets. Entry into the primary market is viewed as an unemployment queue in which acceptable workers are ranked in relation to their productivity and hired along the queue until the employers' needs are met. In the secondary market, however, the queueing process is much less pronounced. Employers appear to hire from an undifferentiated labor pool (26). Andrisani tests three hypothesis: (1) the labor market is segmented and there is little or no mobility between markets, (2) entry into and confinement of the disadvantaged within the secondary sector doesn't result from difficiencies in human capital and motivation but rather from labor market discrimination, and (3) in the primary sector variations in human capital and motivation are related to labor market success while in the secondary sector employers fail to differentiate among workers either based on racial and class differences or wage differentials. The author (6), using data from the National Longitudinal Study (156,157,158,161), found that youths are more likely to cross sector boundaries than to remain within the same sector. The data suggested that discrimination and motivation are the most important factors in determining primary employment opportunities for workers whose first jobs were in the secondary market. Andrisani found within each color group that youth's chances for primary sector first jobs are directly and significantly affected by socio-economic origin and class regardless of mental ability, education, or tightness of the labor. White youths, even in the secondary sector, appeared better able to move further ahead in the queue than black youths.

Closely related to the dual labor market hypothesis is the research on the working poor (14), low wage employment (84), and the peripheral worker (88). The dual market hypothesis states that workers in the secondary sector will continue to receive low wages and share irregular employment. The literature concerned with the working poor and low wage

employment focuses on those workers in the labor market who are employed most of the time or who seek regular employment. The Bluestone, Murphy and Stevenson (14) study is primarily descriptive and expands on the dual labor market hypothesis with the intent of extensively defining primary and secondary markets based on macro-data from the Surveys of Economic Opportunity for 1966 and 1967* and the Urban Employment Study of 1968.** The authors examined mobility and education by race and sex and conclude that increased educational attainment not only failed to close wage differentials among race/sex groups but actually exacerbated it by screening out some jobs. This conclusion coincides with the position of dual labor market theorists that formal investment in human capital does little to alter job opportunities and wage differentials. Bluestone, Murphy and Stevenson (14) identify a third sector as the "irregular economy" a term first used by Robert Averett. Industries in this sector are concentrated in the ghetto and escape social security and internal revenue scrutiny. This "irregular economy" covers occupations, such as illicit drug traffic and single car repairs, specific to ghetto life that are gained through non-traditional channels (38). Some are deviant and others are not.

The focus of the Miller and Ferman study (84) is different. They addressed themselves to the important issue of welfare payments as an alternative to low wage employment and conclusions are drawn from data based on three samples: one of AFDC listings, another of low-wage workers and a third reinterview subsample. The underlying reason for this study is that in the late 1960's and early 1970's it was common to characterize the welfare problem as a work ethic problem, that is, workers were unemployed because they didn't want to work. The author's found the working welfare recipient to be a sharp contradiction to the stereotype of the unmotivated worker. In general, there were few differences between the working welfare recipient and non-recipient low wage workers with respect to personal characteristics or background. At the social strata of both welfare recipients and the working poor, a series of instabilities and family and personal crisis frequently occurred and welfare was viewed as a device to deal with these problems rather than as a long-range adaptation to a way of life. In support of the dual market hypothesis Miller and Ferman also found that low wage workers had a well defined pattern of exclusion from training and union membership.

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*Available for the University of Wisconsin, Data and Computation Center, 4452 Social Science Building.

**Department of Labor, Bureau of Labor Statistics.

Morse (88) estimated that forty-five percent of the labor force consisted of peripheral workers--those who work less than full time during the full year, are generally women, young people, and the disadvantaged. They are often found in jobs that require little skill and earn low wages. Morse's definition of the peripheral worker differs from workers assigned to the secondary market. Morse's workers are clearly employed part-time, as students, housewives or casual laborers and older workers disengaging from the labor force. Whether peripheral workers would prefer full-time employment is not clear.

The dual labor market hypothesis presents one alternative policy view of the labor market with regard to economic and social advancement. Another position supports the importance of investment in human capital through education, on-the-job training and manpower training programs as aids to occupational mobility and economic and social advancement. The dualists argue that education and training programs are not of central importance if markets are segmented because of the structure of the industry. The dual labor market literature has progressed to efforts to define markets more precisely based on types of firms and wage rates among occupations and firms. However, some fundamental difficulties continue to exist which make precise tests of predictions of the dual labor market difficult. Among the questions which remain unanswered are: Are low wages a cause or effect of market distinctions? Where should the wage cut-off take place? Does the theory preclude any mobility? Several tests of the dual labor market have consistently found that levels of education were a poor measure of economic success of non-whites (6,14,84). There also appears to be some mobility up the economic ladder, particularly for young workers (6,70). Proponents of the dual labor market theory propose that priorities be shifted away from investments in education and manpower programs to the following:

1. Providing greater job stability for workers in the secondary sector.

2. Opening up union membership to workers in the secondary sector.

3. Restructuring the economy away from the center or core industries.

Models of the Labor Market

Labor market models have often been presented in general terms. This is because of the almost infinite variety of special characteristics of workers and employers. The literature concentrates on particular markets as defined by

socio-economic groups, occupations or geography. While conceptual models have been few, there are an even smaller number of models which yield quantitative, predictive results. Many of the recent efforts to conceptualize the labor market or develop forecasting models have been supported by OMRD. Research aimed at understanding and improving labor market information has required a precise understanding of the labor market and has resulted in several conceptual and working models. The single characteristic shared by all of these models is their genesis in the methodology of economics; all begin with the labor market as a relationship between supply and demand.

Holt reviewed the types of models that can be built to yield statistical results (53). These include, linear difference equations, which he rejects since the labor market has non-linear, stochastic dynamics; a Markov process with a constant matrix which he rejects as being too rigid; a macro analytical model attributed to Orcutt (105) which he feels holds great promise for labor market research; and a model which groups similar workers and firms and carries out the system simulation in terms of the sizes of the groups in various states taking into account various group attributes.

The Princeton model (112) is an incomplete, macro-model with conceptual and working components. It is one result of a labor market project which produced several studies, some only peripherally related to the labor market. The Princeton conceptual model (112) has both a supply and demand side. Supply is related to aggregate supply which includes: those leaving school, and the time they leave school; those going out of the labor market and the participation rate. Supply is related to the skill composition of those moving into the labor force or those being upgraded, and the geographical composition of the labor force, including migration. On the supply side, the size of the total labor force varies in the short-run as employment opportunities and income effect participation rates and in the long-run as the age-sex distribution of the population changes. Demand is based on output, productivity and consumer demand, investment needs, government needs related to skill requirements, and geographical demand. Interaction in the market place results in wages, wage levels, prices for labor and wage differentials. The Princeton model (112) has five major equations describing: (1) the demand for labor in terms of man-hours, (2) the determination of the work week, (3) the supply of primary workers, (4) the supply of secondary workers, and (5) the rate of change in wages. Equations are presented along with some comments on the pitfalls and advantages in using such a macro-model. An application of the working model is in Black and Kelegian (112).

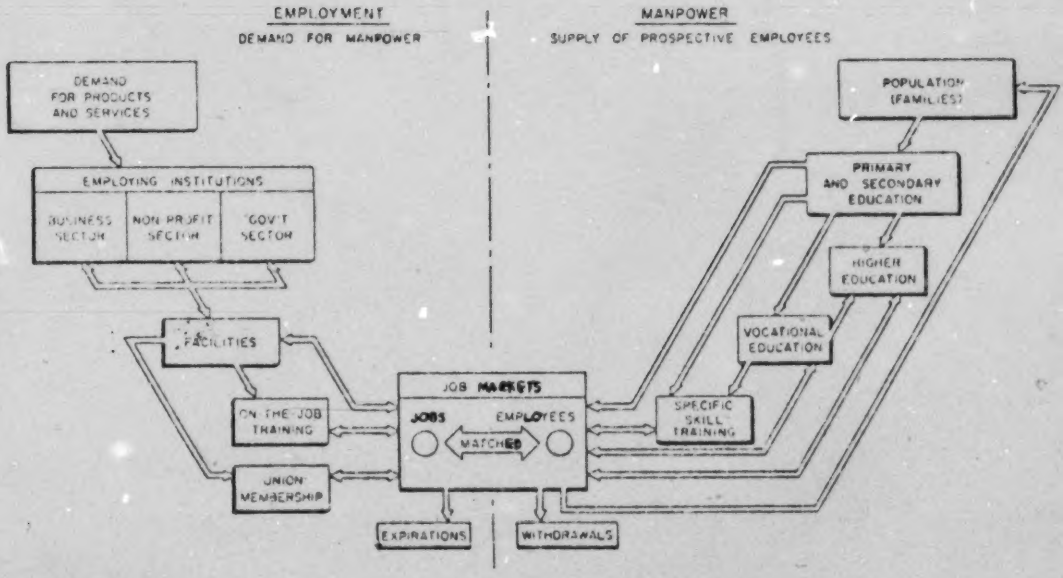
The Cohen, Hill and Shapiro model (22) is a working micro-labor market model of a local labor market. Its genesis is similar to that of models by Yavitz and Morse (173) and Holt (53) in that it began as an attempt to bette understand job information and job search. The unit of analysis of the Cohen, Hill and Shapiro model is the standa metropolitan statistical area and, as in the Princeton mode (112), it attempts to explain both supply and demand. Summ features of the demand model include: (1) local employment heavily influenced by both the level and composition of na- tional aggregate demand, (2) emphasis is on short-run cycli changes, (3) flow of causality is from the national economy the local market which is also true of wage rates and inter rates, (4) the demand sector generates total establishment employment, and (5) employment is distinguished between mar facturing and non-manufacturing. The labor supply model is based on the major premise that local labor force particip tion rates adjust to changing job opportunities and long-ru trend factors in the same manner as do national participati rates and are of the same seasonal variations. Simulation programs have been developed for this model.

The Yavitz and Morse (173) model (Figure 1), was deve oped to study the manner in which labor market information transmitted. The authors define the labor market as the en set of institutions and processes that determine the flow o job opportunities and manpower in both the short and long-r The Yavitz and Morse study is one of many from the Conserva tion of Human Resources project at Columbia University. Th first studies from this project dealt with separate aspects of manpower and labor markets. Recent studies have focused on the New York metropolitan area labor market. Yavitz and Morse focused on the role of market intermediaries such as vocational education, guidance counselors, employment servi and unions. Intermediaries help shape either the supply of or demand for labor. The authors argue that intermediaries have a greater cumulative impact on the labor market and it trends than direct participants. The conceptual labor mark is also divided into a supply side (manpower) and a demand side (employment) with intermediaries on both sides of the market. Education and skill training are intermediaries on the supply side. Employing institutions, on-the-job train programs and unions are intermediaries on the demand side. Their study is mainly devoted to labor market information, and is discussed later in this report.

Holt (53) observed that the labor market is much too complex to attempt to cope with all its aspects in one mod The Holt model is divided into an internal and external market (Figure 2). There are both stocks and flows in the external market. Stocks may consist of vacancies, employe on the job, new assignments and the unemployed. Flows

Figure 1

The Labor Market: Direct Flows System



Source: Boris Yavitz and Dean W. Morse, The Labor Market: An Information
(New York: Praeger Publishers, 1973), p. 21.

consist of new vacancies, new entrances, quits and those terminated from training. The sequence of models is driven by aggregate demand as in the Cohen model (22). The first or demographic model is described in detail by Smith (125) who also gives some of the results of the simulation of this model. Smith's model (125) determines labor participation, employment, and unemployment of eight mutually exclusive demographic groups by projecting the probabilities of the transitions between employment and unemployment. The eight demographic groups are segregated by age, sex, and race. One of the implications for macro-policy of Smith's (125) simulation is that in both a tight and slack labor market less than half of the job stimulus puts otherwise unemployed workers into jobs. A sixteen-demographic-group version of the model applied to a recession is discussed by Smith, Vanski and Holt (128).

Measurement of the Labor Market

The labor market has been defined on the basis of geography, socio-economic groupings, and employment conditio Most geographic measures of the labor market are local. Consequently, research has concentrated on the local labor market (38,41,142,174). An important feature of a geographic measure is that it evaluates where workers live in relation to where they work or look for jobs.

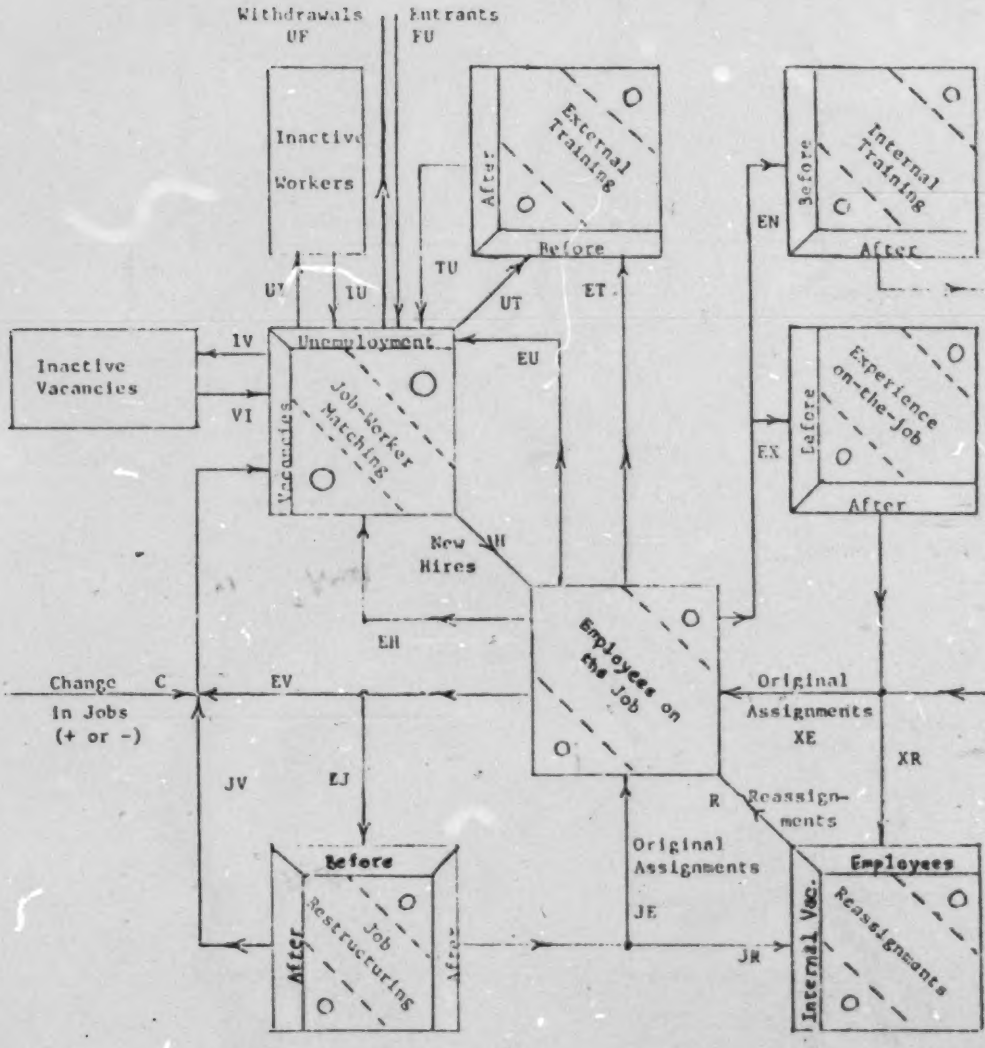
Socio-economic groupings depict the supply side of the market by age, sex, race, occupation, and educational characteristics on an economy-wide basis (53,125). Socio-econom measurement can also be conducted on the demand side of the labor market, presenting employer data by size of establishment and occupational requirements. Unfortunately, this typ of measure on the demand side is most often unavailable.

Employment conditions of the labor market present the relationship between supply and demand and is most often expressed as the rate of unemployment and less often by the quit rate. Work has also been done on the usefulness of vacancy statistics as a measure of the state of the labor market (61,67,95,96).

Data on the supply side of the labor market are usuall available only in macro terms, which encompass the nation or a region and are gathered by the Bureau of Labor Statistics and the Bureau of Census in the Current Population Survey (CPS). Measurement of the labor market, however, is extremely important for planners and policy makers at all levels. National data may be useful for national policy making, however, local manpower planners and practitioners responsible for measuring their local labor markets, are

Figure 2

Structure of the Labor Market



Source: Charles C. Holt, Modeling A Segmented Labor Mark
The Urban Institute, 1974.

often forced to reduce national data for local applications. Cohen (22) and Ultrasystems (148) address themselves to this issue. When using data from the CPS it is necessary to take into account errors arising from sampling variability, respondent interpretations, representativeness of the sample, inconsistent sequential responses leading to rotation bias among the different CPS panels, and errors in misclassifying the labor market status of the interview respondent and household member (53).

Measuring the demand side of the labor market involves the availability of adequate data on vacancies. The demand side of the labor market has been generally neglected. Help-wanted advertising and job openings pending at the employment service are sources of data on vacancies. The labor market "twist" concept, best developed by Killingsworth (60), explained the persistence of vacancies in the presence of high unemployment rates. Some jobs remained unfilled because workers lacked the skills required by the changing structure of the labor market due to the demand for new products and new technology. The National Bureau of Economic Research (NBER) conference papers (96) which examined the gathering and interpretation of job vacancy statistics, discussed such issues as the collection of job vacancy data, the definition of temporary and permanent job vacancies, and the interpretation of vacancy data. Since hiring most often occurs at, "ports of entry" other openings filled from within may be unreported. Other available sources of the demand for labor and the use of data for analyzing labor markets and economic conditions were also discussed. An increase in vacancies in tight labor markets and in an economic downturn would be expected. Job vacancy data and unemployment data can compliment each other. Most unemployment during periods of full employment is due to frictional causes--information on vacancies can pinpoint frictional changes (48). Kuptzin (67) reports on Employment Service initiated experimental studies of gathering vacancy statistics in several labor markets in 1964. The National Industrial Conference Board also gathers vacancy statistics. The BLS survey of vacancies has been discontinued.

Urban Labor Market

A general metropolitan area is often defined in Bureau of the Census terms as a standard metropolitan statistical area (SMSA). A particular labor market may be smaller or larger than the SMSA and there may be several labor markets in the same SMSA. Thal-Larsen (142) discusses the several labor markets in the San Francisco-Bay area. Bluestone (14), Friedlander (38), and Harrison (50) discuss the ghetto labor market in which job opportunities and information concerning job openings are limited to firms close by and easily reached.

OMRD has supported several major efforts to conceptualize and gather empirical evidence on individual labor markets. Metropolitan as well as rural labor markets have received the greatest attention. The Conservation of Human Resources (38, 41,174) project at Columbia University has focused on metropolitan labor markets.

The following are major issues concerning the urban labor market. Effective manpower planning must take into consideration that there are a number of sub-markets within the metropolitan labor market. A distinction must be drawn between the suburbs and the ghetto or inner city. Studies of commuting patterns have indicated that whites live in the suburbs and travel to well paid white-collar jobs in the inner city, while non-whites who live in the inner city experience difficulty in getting to jobs in the suburbs. These commuting patterns exist because firms which provide services can rent expensive office space in the inner city while production firms which require a larger area must move to the suburbs in order to rent less expensive land. The suburban labor market is primarily composed of white workers who live in the suburbs. Inner cities have another labor market to which non-whites are confined because of where they live, lack of transportation, and the lack of information about the suburban labor market. Non-whites are further disadvantaged because few lower skilled jobs are left in the inner-city, while the relatively well paying production jobs have moved to the suburbs which are not as accessible to non-whites.

Unemployment rates in the inner city have been significantly higher than in the suburbs. Several hypotheses have been advanced to explain this difference. There is a mismatch between the job requirements of the inner city and the skills of the residents. There are a considerable number of undesirable, low wage jobs with poor working conditions in the inner city. The inner city has a greater proportion of workers in occupations which traditionally have high unemployment rates such as operatives, non-farm labor and services.

Stanback and Knight (130) developed a methodology for classifying urban labor markets by size and dominant economic function, and offer a hypothesis for explaining the growth of cities. Stanback and Knight found fairly consistent similarities among cities of the same size between 1950 and 1960. Business and consumer services played a disproportionately large role and manufacturing a relatively small role in 50 fast growing labor markets, many of which were of medium size. Gellner (39) says that some cities have moderate proportions of both blue and white-collar workers while others have strong blue-collar orientations. The type of industry growth will effect job opportunities, depending upon whether the leading sector becomes labor or capital intensive. A detailed examination of New York City by

Ginzberg (41) concluded that New York is less immune to changes in economic growth than other cities because it is less dependent on manufacturing and construction. The growth of its suburbs and the vigorous expansion of suburban employment are accounted for by activities belonging principally to the local sector, such as retailing and consumer services. These are jobs which have been closed to minority workers. Friedlander (38) reported that the unemployment problems of the poor in the central cities are not due to a lack of demand for labor in the local market but rather to barriers that prevent the efficient, equitable allocation of people into jobs.

Stanback and Stanback in Ginzberg (41) on the issue of suburban growth, concluded that the migration of firms from the city is no longer the major reason for the growth in suburban manufacturing but rather that firms originate in the suburbs, move from elsewhere, or are branches of firms located in other areas. The heavy reliance on auto transport and the extended journey to work discriminates against the poor, the young, and the old, by increasing the cost and time required for job search and reducing the effectiveness of the labor market information system. On the other hand, the migration to the suburbs of middle class whites has created a large supply of labor for the suburban market. Gellner (39) found that a considerable portion of Negroes with high skills and high paying jobs had also moved to the suburbs.

Freedman (37) and Ginzberg (41) state that New York City's minority population is not confined to one or two ghettoes but that New York is a series of overlapping minority neighborhoods. Friedlander (38) and Harrison (50) examined the ghetto labor market within the inner city. Friedlander concluded that the conventional unemployment rate does not adequately measure slack in the ghetto labor market. Considerable unemployment is unreported. He also did not find any significant relationship between ghetto unemployment rates and the educational attainment of ghetto residents. Harrison (50) views the labor market available to ghetto residents as a dual market with ghetto residents more likely to work in the secondary market. He also reviewed a number of programs for increasing economic opportunities in the ghetto. The Gellner study (39) reported that occupational upgrading proceeds slowly in the inner city in contrast to the surrounding suburban rings, that Negroes hold a disproportionate share of the lower skilled, less desirable jobs, and that their concentration in inner cities tends to skew the occupational distribution of city workers in the low skilled direction.

Morse (88) concluded that older, black male workers have a strong attachment to work and that it provides independence and meaning to their lives. The movement of their place of employment to the suburbs shatters this relationship since they often cannot find or afford houses near the new location of the firm. Morse and Yavitz (173) commenting on labor market information in New York make the point that even if computerized job banks and job matching facilities were not spectacularly successful they may still prove justified because of their impact on certain groups.

Rural Labor Market

The rural labor market has been investigated by studies at the Center for the Study of Human Resources at the University of Texas and the Center for Rural Manpower and Public Affairs, Michigan State University. The rural labor market may not be a separate labor market but may encompass the rural area as well as the nearby urban market. Workers may reside in the rural area and commute daily to jobs in the urban market. Moser (89,90) and Marshall (77) have commented on the interaction of the two markets which places limitations on any definition which separates rural and urban markets. The relationship between these two markets is apparent when one takes into account that only 25 percent of employment in agriculture is full-time (77). The largest proportion of rural dwellers work in non-agricultural employment often in urban areas. This is supported by Holt (55) and by Ericson (28). They found that an increased number of rural workers can be classified as urban workers depending upon the season or date.

Some workers, however, are employed full-time in the agricultural sector. Included in this group are migratory workers and border commuters. Concerning the relationship between the demand for and supply of farm workers, there is little doubt that the number of full-time jobs in the rural labor market has been declining. As jobs decline in the rural areas farm operators leave farm employment. The 1964 Census of Agriculture reported that about forty-six percent or more of farm operators reported some work off the farm (91). Miller (85) reported that many employers believe that there is an unlimited supply of semi-skilled agricultural workers. This view is strongest where Mexican daily commuters can be employed.

Forecasting the Labor Market

Forecasts of the labor market may be used either for government planning or to allow private decision makers to

make more rational decisions. In the government, public, economic, and social goals are stated and then forecasts are made of the labor necessary to achieve these goals. Ideally, educational institutions and guidance counselors direct their efforts towards providing trained workers to meet these goals. In the private sector, descriptive projections of needed workers are based on the anticipated demands of the product and labor markets. Forecasting is often advocated because of its promises of allocation and efficiency. It affords a vehicle for either avoiding or minimizing shortages and surpluses. At the very least, it may provide a warning of serious imbalances which manpower programs may offset.

In the United States forecasting is of the second type. There exists neither a central forecasting agency nor generally accepted national goals towards which sources of labor supply such as educational and training institutions can set their programs. Forecasting is decentralized and engaged in by both public and private agencies. Lecht (68) provides an example of national forecasting.

Three generalizations can be made about labor market projections in the United States. First, the techniques are similar; second, a similar set of alternative national economic and social goals is assumed for forecasting at the national level; and third, there is considerable demand for local labor market projections by local manpower planners and practitioners.

Input-output and regression analysis are two principal techniques used to forecast changes in the labor market. Input-output analysis, or the interindustry transactions approach, consists of manipulating a tabular model of the economy which lists the transactions among all producing industries and between these industries and the final demand sectors. Occupational projections can be made by using the matrix of occupational patterns provided by the Bureau of Labor Statistics (BLS). This matrix gives the percent of total industry employment in 185 occupations for 164 industries. This matrix is based on the industrial classification used in the 1970 census.

Two criticisms of the interindustry transactions approach for forecasting are that, (1) the coefficients in the industry and employment matrices are based on past relationships, and (2) this technique is considerably removed from the actual labor market. Attempts have been made to overcome these criticisms. The industry matrix of the Office of Business Economics has been updated to 1967 and the BLS Interindustry Growth Project has sought to update the manpower coefficients to more accurately predict actual employment.

The regression analysis approach predicts manpower requirements by the use of a model containing some of the economic parameters which affect manpower requirements. It is not necessary that the model contain all of the parameters. These parameters have included gross national product, labor force and unemployment. The level of economic activity may be translated into total employment requirements and employment by industry. Employment by industry is then broken down into occupational manpower requirements. This technique is used by the BLS.

The BLS estimated the level of economic activity and real GNP in 1980 by combining projections of the total employment with projections of hours of work and output per man-hour. Separate projections of these two variables were made for the public and private sectors of the economy. Once the basic economic variables for 1980 were fixed, detailed industry employment was established. Three methods were used, depending upon the data available, the required level of industry detail, and the characteristics of the industry. One method relied upon input-output analysis and required allocating final demand among the major types of goods and services consumed. Industry employment was then estimated using the input-output inverse matrix to determine the output in employment required from each industry supplying materials or services to produce the end product. The second procedure involved the use of regression analysis to estimate employment in each industry. Equations were developed which were related to industry employment in the past two decades with different economic variables considered to be strategic in determining long-run changes in employment. The BLS also studied some industries individually to determine the factors expected to influence their future growth. This approach was used primarily for industries in which past employment was not indicative of future needs and for which the BLS model had provided unacceptable results. The results obtained from input-output analysis, individual industry studies, regression equations and qualitative information concerning the technology and structure of the industry were used to determine employment projections for each industry. In the third method the BLS translated industry employment into occupational employment by developing occupational projections for each industry for 1980. The occupational structure of each industry was projected from historical statistics and other factors expected to influence occupational structure, such as new technology and changes in products. Employment requirements for most occupations were derived from the projections of total industry employment and the occupational patterns for that industry in 1980. Some occupations are affected by their own complex set of social and economic variables and the BLS analysis of the factors affecting employment were used as the basis for estimating future requirements.

The first efforts at manpower projections in the United States were concerned with the supply of labor. Most efforts were concerned with projecting the size of the labor force by age, sex, and race based primarily on demographic factors and judgments about labor force participation rates. Less work has been done on projecting supply by skill and occupational training. This is primarily due to the lack of a baseline or inventory of the supply of existing skills as of a particular date at which projections are made. Baseline data are available on current enrollments and recent graduates of specific courses, majors in programs in vocational schools, enrollments in engineering and science programs and apprenticeship programs. The Bureau of the Census and the BLS have been criticized for ignoring the skill content of jobs and for basing occupational data on socio-economic status rather than on realistic assessment of the type of work performed.

Two aspects of forecasting are particularly appropriate to a discussion of labor markets. The first is an assessment of the manpower impact of Federal expenditures including grants. Bain (10) and BLS Report 424 (150) address themselves to this issue. The second aspect is concerned with forecasting the local labor market based on demographic and occupational segmentation. Local planners have consistently requested forecasts of their local labor markets for planning. Cohen (22) has suggested that forecasting should be done either at the state or regional levels in order to achieve economies of scale. There are also several dangers attendent with forecasting at the prime sponsor level. One is the lack of sufficient local data to serve as a base. Another is that local labor markets are subject to considerable interference and effects from outside the market which must be taken into account.

Recommendations

The implications of the dual labor market hypothesis for practitioners are, training efforts should be concentrated on workers in the secondary market aimed at differentiating their skills and work experience. Workers can be moved most easily into the primary market early in their careers and attention should be focused on youth as they enter the labor market.

Resources should be provided to increase the local data base. Employers, particularly, should be encouraged to provide quantitative and qualitative data concerned with their manpower requirements. Planners need to convince employers that this would effect the quality and speed of local placements and the economic health of the community.

Resources should be contributed to state or regional labor market forecasts. New efforts at measurement on the firm (demand) side of the labor market would assist forecasting and occupational guidance.

Provide job opportunities for welfare recipients or their families. R&D indicates that work provides meaning and direction to their lives.

Practitioners should include local labor market intermediaries in both the planning and implementation stages. Intermediaries, such as schools, unions, and employment agencies, vitally effect the local labor market.

Private employment agencies should be encouraged to share their labor market information with area planners, perhaps, on a contractual basis.

R&D concludes that a knowledge of the dominant area of economic growth in the local labor market can aid practitioners in understanding in what sector job opportunities will develop.

Increase labor market information in center cities, through intermediaries, to residents who have limited contacts.

Practitioners should identify high priority labor markets, based on size, low income or unemployment, and concentrate their first efforts in these markets.

Encourage economic development in high unemployment areas, whether it is center city or rural, for easy and quick access to jobs is important even in the age of the automobile.

III. THE SEARCH FOR WORK

This chapter discusses the supply side of the market. The principal conceptual model used to analyze job search takes into consideration both the supply of and demand for workers (53,63,110). In the job search model the worker seeks information about particular jobs or "searches" them. Job search entails costs. Once the worker is offered a job he must decide whether or not to accept it. The worker who turns down an offer has the prospect of searching for another job but with additional costs. The searcher stops looking whenever a job offer is received that is at least as great as the reservation wage, or wage desired by the worker. Several authors have suggested that the reservation wage decreases as the time unemployed increases (61,63).

Woglom (172) advanced the theory of job search and added several variables to measure the intensity of search including classified advertisements and other recruitment methods which effect the rate of job encounters. He does not present a complete description of labor supply behavior but concentrates on the effect of changes in real wages and the duration of search. One of the policy conclusions of Woglom's models (172) is that manpower and other government programs may increase the duration of unemployment by increasing the expectations of trainees and encouraging them to continue their search.

OMRD sponsored research has concentrated on empirical examinations of how samples of the labor force search for work. The usual methodological approach has been to divide job search methods into formal and informal techniques and then to analyze survey data in order to determine which sources workers are most likely to use and with what results. Formal sources as those which provide job market information, such as the employment service, private employment agencies, classified help-wanted ads and school placement services. Informal sources of job information are friends and relatives. The research has been conducted to obtain data for determining whether formal methods should be supported and strengthened. This approach can be criticized on several grounds. Job seekers often use several methods of job search both formal and informal and it is difficult for both the worker and the researcher to determine which of the several methods employed resulted in the job. Survey respondents given a forced choice may indicate their last technique, such as a letter

or direct application, when in fact an earlier technique, such as a friend or the employment service, provided the initial lead to the job.

Job Search Techniques

Early OMRD research examined the job search of white and black males, the most advantaged groups, in the labor market. Subsequent research focused on the job search of those most disadvantaged in the labor market. The Sheppard and Belitsky study (119), an example of the earlier research, explored the job seeking behavior of unemployed workers, and, in particular, examined the relationship of social-psychological factors to job-seeking behavior and success. They found that friends and relatives most often are sources of jobs for blue-collar workers and women. Workers typically applied directly to a company only after having heard about job openings from friends or relatives. Men were much more likely than women to apply directly to a company without leads from friends and relatives. With regard to informal channels Stevens (135) found friends and relatives, direct contact and former co-workers accounted for sixty-one percent of the jobs accepted. Informal channels are both more acceptable and more likely to be successful, however, it is difficult to determine why. That is, do workers use informal channels because they expect them to be more fruitful, or because they have no choice. Success in finding a job depended on the amount of time a laid-off worker took to begin the job search. The sooner a worker started looking for a job the greater the probability of success. The researchers also developed an index of effectiveness, which measured the relative usefulness of alternative search techniques. The most effective technique was the use of friends and relatives. They also investigated the role of motivation and anxiety, later expanded on by Stephenson (133,134).

The degree of achievement motivation of the workers effected the amount of time workers waited before starting their search for jobs. The authors had previously concluded that an early beginning to search was related to success and the high achievement motivators who started their job search early were most likely to be successful. In the first month after being laid off, workers with low motivation applied to fewer companies than those with high motivation. High motivation workers also tried to get a different job than those they previously held, which was not the case with those with low motivation. Those with high interview anxiety would tend to let someone else do the first screening for them, such as the employment service, and high anxiety did not lead to greater success. High anxiety was also found to be a trait possessed by black, blue-collar workers. The policy

implication of this study is that the r oval of high anxi combined with the use of a wide variet f job seeking tec ques can lead to early placement. She d and Belitsky a suggested that since many workers expec o be called back and this effects their intensity of job arch that the em ment service verify with their companie eir callback st Stevens (137), in a follow-up of Shepp and Belitsky, al measured the effectiveness of job searc techniques. He p posed an index of effectiveness based o the relationship between the number of contacts and find g a job. He con- cluded that a substantial amount of fruitless job search t place.

Employers prefer to use informal intermediaries and notify their own employees of openings. This not only red their own search costs but acts as a screening device. Fi which offer the least desirable wage rates, working condit and physical effort are more likely to use employment agen and help-wanted ads.

The largest sample survey of job search techniques, c ducted in 1973, highlighted the significance of the use of direct application (152). Direct application was the most frequently used technique followed by friends, want ads, a the employment service. Direct application was most effec for both men and women. Negroes, however, were more likel to use the employment service and community agencies proba due to their lack of accessibility to friends who know abo jobs. Additional data on job search methods are provided the National Longitudinal Surveys (155,156,157,158).

Another approach taken by research into job search techniques has been to determine what groups are most like to employ what techniques and to suggest alternative stra- tegies for different groups segmented by age, sex, race, education and skill level. Sheppard and Belitsky (119) fo that semi-skilled men were most likely to go directly to t company while skilled workers used direct application leas White collar workers, mostly women, heavily used the emplo ment service. Miller and Ferman (84) support Sheppard and Belitsky's (119) earlier work. In their study, blue-colla semi-skilled and unskilled workers tended to rely heavily informal sources, however, their sample of low wage worker and welfare recipients relied much less than the Sheppard and Belitsky (119) sample on direct contact. Miller and Ferman (84) asked respondents how they first learned about the job which they eventually obtained and the results clearly indicated that primary information was from source other than public or private agencies. These informal lea were determined to be no less effective than the formal or although it has been argued in some of the literature that formal job methods have advantages because of their broade

capabilities for rendering more extensive job information. A study of the Chicago labor market by Schultz and Rees found that more than half of all vacancies in white and blue-collar occupations were filled through informal channels.* Stephenson (133,134) found that black youths relied more on the state employment service to find jobs than white youths. He attributed this to a lack of cars which limited the black youths to firms they could reach on foot or by public transportation. The E.S. was used since it provided a central source of job information. Friedlander's (38) work supports Stephenson's (133,134) results. A study of the process by which young men in low income Black and Chicano ghettos in Los Angeles entered the labor market was conducted by Bullock (16).

Stephenson (133) concentrated on possible differences in job search behavior among white and black, male urban youths. He investigated the costs of job search, reservation wages and job search duration. Stephenson used the following explanatory variables: non-wage income, an attitudinal index such as interview anxiety and achievement, methods of job search, and demographic data. His results indicate that black youths as compared with whites had lower weekly search costs but longer average costs since they are unemployed longer. His results support Sheppard and Belitsky's (119) findings that the target wage and aspiration level declined as search length increased.

Classified help-wanted ads are an alternative to the use of friends and relatives. Want ads have been used as a quantitative index of economic activity and during the period of high unemployment in the early 1960's, unfilled jobs, as indicated in the help-wanted ads, were used as evidence of a labor market "twist", or, structural changes in the composition of demand for labor. The Olympus Corporation (163) assessed the usefulness of a limited number of want ads for job seekers, employers and as an indicator of labor market activity. Five years of want ads in the Sunday editions of the San Francisco Chronicle Examiner and the Salt Lake Tribune were analyzed. This study concluded that want ads were a limited source of information about local labor markets, that they are of value to a comparatively small number of employers, and that their value as a job seeking tool was seriously impaired by inadequate and inaccurate job information, poor organization, and stratification in the newspaper. Approximately sixty percent of the employers placed want ads only when they had a specific vacancy, most often as a last resort when vacancies became difficult to

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*George P. Shultz and Arnold L. Weber, Strategies for the Displaced Worker, (New York: Harper and Row, 1966).

fill. Private agencies used ads as advertisement for themselves. Ads of this nature could not be used for job seek for self-screening. The report concluded that help-wanted ads did not appear to be an important indicator of labor market activities.

Programs to Aid Job Search

Several experimental programs funded by OMRD have te alternative methods of assisting the disadvantaged in find jobs. Stevens (135) sought to determine if job seekers mi benefit from an expansion of their contacts and labor mark information through the addition of supplemental informati This approach was based on the assumption that limited inf mation about specific job openings imposes a severe constr on the efforts of job seekers, and is directly related to Sheppard and Belitsky (119) conclusion that using a wide ranging approach in job finding instead of first self-selecting, or what they call "prior awareness", was more successful in obtaining employment. Job search informatio from job bank listings, newsletters on current job opportu ities, listings of employers known to be hiring or having hired in the past from closed job orders, special job summaries, and other sources of supplemental job informati were given to job-ready males who could be expected to eng in self-initiated job search. Stevens (135) found that pr to registration with the E.S., thirty-six percent of the w participants and forty-two percent of the non-whites had n initiated any contacts. In addition thirty-nine percent o the whites and forty-eight percent of the blacks had used only one source. The author found that giving the applica supplemental information encouraged them to apply directly a company even without prior knowledge of an opening. He found non-white recipients of supplemental labor market in formation were significantly more successful than non-whit who did not receive any information. Twenty percent of th who received supplemental information contacted the compan in the same day. The author concludes from his very limit sample that there is some evidence of the successful use o supplemental labor market information, particularly by non whites. An interesting finding of his study is that appli cants to the E.S. responded more positively to information on possible jobs than they did upon being given a definite referral.

In another study of the uses of assisted job search Stevens (136) concluded that unemployment insurance claima expected than mandatory registration with the E.S. would result in obtaining a job. The author believes that most claimants should not be required to register with the empl ment service but that only a selected group should have

mandatory registration. As in his earlier study he found that personal motivation, measured by direct contact with employers, even without any prior knowledge of an opening, often resulted in placement.

The North Carolina Manpower Development Corporation (NCMD) (101) focused its efforts on the demand side of the market. Firms were given the incentive to provide pre-employment training and to assist in the placement of the trained enrollee. NCMD took this approach because employe were reluctant to hire first and train later, in smaller urban and rural areas of North Carolina. Two programs wer offered. One was an in-plant pre-vocational training program. The second, was a three-day training program for managers and supervisors to make them aware of the work problems of the disadvantaged and unemployed workers the companies might hire. Enrollees in the pre-vocational training project were given adult basic education, motivation training, and job seeking and holding skills.

Another demonstration project conducted by the Natio League of Cities and the United States Conference of Mayor (97), studied job opportunity programs for the disadvantaged and their impact on the performance of municipa services in six cities. Federally funded manpower program recruited, selected and trained disadvantaged residents for new careers, paraprofessional and career employment in the municipal government. Few of the cities initiated their own programs or used their own resources to innovate train ing programs for the disadvantaged but preferred to use federal funds. The reaction of supervisors to these new careers was mixed. Some supervisors felt that participant didn't belong in government employment or, that they were not prompt in their work attendance. Generally, however, supervisors expressed satisfaction with attitudes and work performance. Among the conclusions of the League's report (97) were: (1) new careers programs should not be limited to human services field, (2) one of the most difficult tas was linking new careers to the regular, long-term promotional ladder. This was particularly true where the civil service commission had to be flexible, although, the Leagu report made the point that only minor changes would have to be made in civil service procedures. One reported change was the elimination of a criminal record and an automatic justification for exclusion from employment, (3) enrollees in the various manpower programs utilized by the cities tended to select the best of the unemployed and underemployed and not the hardcore disadvantaged, and (4) the new careers program were generally very small and had little impact either on municipal personnel shortages or general unemployment among the urban disadvantaged.

Another demonstration project assisted the job search and placement of women in Memphis (144), expanded their employment opportunities and created new employment in areas traditionally closed to women. Volunteers were an important feature of this outreach program. These volunteers, eighty in two years, provided counseling and referrals and made personal presentations to employers to open up job opportunities. Supportive services included aid for training, transportation and child care. Applicants were referred to the program from community agencies. During three years 108 placements were made in jobs and training. Prior to enrolling in the project, they had worked as domestics, waitresses, and light production workers. However, after assistance from the project, earnings were increased through employment as drivers, bartenders, security guards and in better paying production jobs. Motivation and skill were important factors in placement, since there was some reluctance to entering male dominated jobs, even by women with considerable education. Women with college degrees were just as hesitant to venture into these jobs as were women with a high school diploma or less.

A project in Atlanta (65) focused on encouraging black women to enter professional, managerial and technical occupations. One hundred twenty-six were placed in two years. Orientation to new, non-traditional occupations for minority women and job development were important features of the project. The project began as an educational program and moved into outreach and placement in the second year. Data on openings by firms and occupation were extremely difficult to obtain and there was a clash with middle-management who felt threatened when project staff approached corporate directors for jobs. This project which has been extended to Houston, Cincinnati, Dallas, New Orleans, Tulsa and Los Angeles, includes recruitment, screening, placement and counseling.

Recommendations

Develop programs to encourage workers to initiate job search as soon as they learn of their possible unemployment. For larger layoffs job clinics may serve as an incentive.

Present the widest number of jobs, employers and occupational choices to the unemployed. Referrals to specific openings inhibits rather than encourages job search. General labor market information eliminates the tension that accompanies a specific job referral.

Job preparation clinics and counseling can remove interview anxieties for low motivation workers; identified in R&D as blacks, women and blue-collar workers.

Expose unemployed workers to the possibility of occupational changes and job clusters that use the skills they have acquired.

Encourage the widest variety of job seeking techniques which use both formal and informal intermediaries.

Practitioners should use formal search techniques, such as the E.S., to aid minority group members in their job search.

Mandatory registration with the E.S. raises the expectation of a job through the E.S. that may not be fulfilled and voluntary registration with the E.S. is preferred.

Black and women workers should be oriented and receive job development in non-traditional occupations, in conjunction with counseling.

IV. LABOR MARKET INFORMATION

Labor market information (LMI) is a catch-all term concerned with the sources, communication and use of information about the supply and demand side of the labor market.* LMI is the broader term and includes information concerning relative employment opportunities, preparation for alternative occupations, and relative income prospects. Job information is more specific and is concerned with the characteristics of specific openings. In conceptual terms, LMI is useful for determining how quickly firms and workers are able to respond to the market signals of wage differentials and job opportunities. Lack of LMI may accentuate wage differences and continue market segmentation. Stigler (138,139), Rees (113), Phelps, et al. (110), building upon the conceptual job search model discussed in the previous chapter, pointed up the importance of LMI and defined several markets on the basis of its availability.

LMI is available from both formal and informal sources such as firms, classified help-wanted ads, private employment agencies, the employment service, school and college placement service, friends and relatives, trade unions and professional organizations. General LMI includes information concerning employers in the area, occupations in each company, transportation, vocational guidance, how to apply for a job, unemployment and vacancy statistics, occupational requirements, occupational wage rates and employment outlook. The users of LMI include: unemployed workers, those seeking to change jobs, employers for manpower planning or wage determination, government agencies for manpower policies and planning, educational institutions in planning curriculums, and individuals planning careers. Users and suppliers may be characterized either as direct participants, workers and firms, or intermediaries, such as public and private employment agencies, unions, and schools. Yavitz and Morse (173) focus on the influence of labor market intermediaries on employers' needs, planning and constraints. They argue that intermediaries such as craft unions may have a greater effect on the labor market than direct participants.

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*For a discussion of LMI and job information see Parnes (108).

Yavitz and Morse (173) distinguish between two types of LMI, extensive information covering a wide-range of present and potentially available jobs and intensive information, considerable in-depth information about a smaller number of jobs. Extensive LMI comes from unemployment insurance rolls, current population surveys and establishment data. Intensive information is available from employment agencies, friends, relatives, professional organizations and task analysis.

There is considerable discussion concerning the role government plays in providing LMI. Should the government be encouraged to provide LMI or bridge those gaps in LMI that cannot be filled by the private sector? Yavitz and Morse (173) argue that the initiative should be left to the private sector. Aller (5) contends that the E.S. should provide LMI for policy decisions in the public sector.

Another unresolved question is, what can be done to improve the delivery and scope of information. OMRD research has explored ways to improve: to improve intermediaries such as the employment service, computer assisted job matching, and upgrading occupational information.

Ginzberg (41) concluded that there is at present no formal mechanism for local inventories and categories of much of the LMI that is generated. There is also no systematic procedure for LMI distribution. There have been no careful considerations or estimates of the costs and benefits which participants in a cooperative labor market information steering system might expect, and there is no single institution which stands out as the most logical candidate to take on the role of coordinator and administrator of a labor market information clearing house.

Intermediaries

The external labor market is an informal system in which a number of intermediaries act to shape the market, transmit information, and match firms with employees. Such intermediaries include vocational education, counseling, public and private employment agencies, want ads and unions.

Want Ads

Want ads are used by some employers for lower skilled white-collar workers particularly in tight labor markets. They are not generally useful to job seekers as a source of LMI.

Unions

Unions are an important hiring mechanism in the construction industry and relied upon by small firms for screening applicants.

Educational Institutions

Educational institutions as an intermediary are examined by Thal-Larsen (142), Yavitz and Morse (173), Lewin, et al. (71), and Stuart (140). Legislation has provided increased support for vocational education. The linkage between the schools and the labor market is the guidance counselor. He uses LMI for occupational guidance; job information is received from his contacts with public and private employment agencies. Thal-Larsen (142) found in an earlier study that school counselors engaged in very little vocational guidance.* The author found that there was widespread incidence of vocational programs in Bay Area high schools but little vocational work experience. Vocational education does not necessarily lead the graduate to a job or career. In construction, vocational education does not automatically qualify one for apprenticeship, nor do graduates of vocational schools appear to receive preference for entry into the crafts. Vocational education courses are useful as preparation for jobs and careers in the food service industry (15).

Occupational Guidance

One of the excuses given for the lack of occupational guidance given in the high schools is that most students go on to college anyway. Thal-Larsen (142), however, points out that many students drop out before completing high school or early in their college careers and never receive occupational counseling. Career guidance is also useful at the college level for setting realistic college objectives. Occupational guidance counseling in the schools at all levels is definitely needed in a period of declining growth in college enrollments and declining opportunities for college graduates.

The Bay Area study (142) indicated that there was very little contact between school counselors and the public employment service. Yavitz and Morse also found that for

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*A recent advancement is the group occupational guidance project now being used by Texas high schools. The group technique is central to the Houston Vocational guidance project.

many the employment service provides career guidance personnel with inadequate information about desirable occupational careers. Work experience programs are confined to temporary jobs which are short-term and usually do not lead to full-time employment. The single educational level that appears to devote the most resources to occupational guidance is the two-year college (81,142). Thal-Larsen, in a sample of these schools, found a designated placement office and vocational-technical teachers assisting in placing their own students. One criticism made of vocational education is that it is not responsive to changing labor market requirements. Employers in the Bay Area said they had little influence in the determination of school curricula. This was supported by Lewin (71) and Stuart (140). They found that labor market information was used very infrequently to shape curriculum and assign students in New York and Michigan. In the 1960's only two new curricula were introduced into the New York City vocational schools.

Private Employment Agencies

Two studies of private employment agencies found them to be characteristically small, individually owned, and specialized by occupations (43,142). These agencies provide firms and applicants with information on the state of the market and wage rates. Applicants are screened by tests and forms requiring detailed work histories. Agencies have gathered considerable LMI including individual employer specifications for occupations which they share only with their clients. Since they are private, these agencies are severely limited in their role as a general intermediary.

Urban Labor Markets

Lewin, Horton, Shick, and Brecher (71) examined the role of correctional institutions, vocational schools, municipal government, and trade unions as intermediaries in the urban labor market. Correctional facilities provide prisoners with minimal training opportunities. Consequently, most offenders, who are undereducated and have held only marginal jobs, are unprepared for the world of work upon release. Consequently, the study concluded job placement support is required.

Rural Labor Markets

Rural labor market intermediaries are discussed by Ericson (28), Moser (89,90,91,92,93) and Miller (85). Ericson (28) reports on the commuter system across the

Mexican border fostered by word-of-mouth. Moser (89,90,91, 92,93) underscores the lack of LMI and formal intermediaries in the rural market. Rural workers, as a consequence, find themselves mismatched in the labor market. To correct this deficiency Stuart (92) suggests job matching, placement of hired farm workers particularly seasonal workers and the matching of part-time farm workers with non-farm job opportunities. Demonstration projects with those objectives will be discussed in a later chapter. This lack of labor market information is partly attributed to the poor estimate of what is rural and the need to obtain non-metropolitan area labor statistics.

Farm workers also lack job information. This is particularly true of migrant workers, even though about half of the worker's time on the road is typically arranged before leaving home (85). This conclusion is supported by Moser, et al. (89,90,91,92). Ehrenburg (89) found that workers often received incorrect information about housing and job possibilities, and that not all respondents were told about wages when initially given job information. Nineteen percent were merely told that the job existed while the rest received some information about wage rates.

Miller (85) focused on intermediaries in the migratory farm labor market. The principal intermediaries in lower Texas are, crew leaders, the employment commission and private labor recruiters. Crew leaders, some of whom work alongside the migrants, play a vital role in matching people with jobs. They also arrange for transportation and are paid on a weekly basis. Most of the leaders before migrating with their crews do not have all their work lined up for the full period away from the valley. About half the households in Miller's (85) survey were assured at least 12 weeks of work before they began to migrate.

The Employment Service

The E.S. has received more attention than any other intermediary. It is the largest single organization whose primary functions are matching people and jobs, and the dissemination of LMI. The E.S. has been characterized in the literature as follows.

1. The E.S. is really a series of state and in many respects local agencies. Local offices determine their own direction and what services they will emphasize. There is little interoffice communication between offices and no overall national plan or direction (5,142).

2. Services are provided only for those who come to the office. Outreach is not widespread in the E.S. and clients must seek the office. If there is not an office in the area services cannot be provided (1,142).

3. The E.S. underwent a change in service orientation in the 1960's just as it was beginning to build a reputation as a job exchange for all occupational groups. This reorientation was to provide first priority to the most disadvantaged in the labor market by reason of color, age, or education. As a consequence of this reorientation potential clients who are not disadvantaged and employers who are not interested in hiring the disadvantaged look elsewhere for jobs and applicants (114,142). Aller (4) found there was a big difference in the degree to which state agencies directed their efforts to serve the disadvantaged and the degree of accommodation was reflected in the level of productivity. States that accommodated and served the disadvantaged were likely to have better productivity figures.

4. The close tie between E.S. and unemployment compensation (UI) either physically or through registration requirements associates all jobs applicants with those who possess marginal skills and creates many issues in trying to effect change in the E.S. (45).

There is no agreement in the literature about whether the E.S. should be a total manpower agency or whether it should have a strategic, bridging roll, and concentrate on particular issues or aspects of the market. The Advisory Committee on Research (3) and Holt (54) regard the E.S. as a total agency while Yavitz and Morse (173) view it in the more limited context of providing services that cannot be done by the private sector. Horton (71) concluded that in New York City a central depository of data might be possible but the absolute number of information users is so large that no single unit could respond to all the varied demands. Several studies devoted to improving labor market information have suggested the development of a new manpower agency devoted to labor market information and planning rather than using the E.S. for these activities (22).

Evaluations of the activities of the E.S. are provided in the reports of Thal-Larsen (142), the National Employers' Committee for Improvement of the State Employment Services (114) and the Aller report (5). The Bay Area study (126) continuously emphasizes that the employment service is being asked to do the impossible. As an agency given the priority of working with the disadvantaged applicant in counseling, training and referrals and providing LMI it cannot be a full service agency. The Aller report (5) points up the fact that the employment service has not, but could be used as a data base for research purposes.

Many suggestions have been made for improvement of the employment service. Some of these suggestions are concerned with broad structure while others deal with specific policies. The National Employer's Committee (114), The Advisory Committee on Research (3) and Thal-Larsen (142) recommend strengthening national leadership, while Holt (54) argues against federalization because of the lack of support for such a move. A general and universal recommendation calls for a clarification of the role of the E.S. (5). The Comprehensive Employment and Training Act of 1973 (CETA) considerably alters the role of the E.S. and must be related to any recommendations regarding the future of the employment service. Under CETA the E.S. contracts with prime sponsors to provide the services required in that labor market. This new direction clearly localizes the E.S. (5).

The recommendations for specific process and policy changes include: (1) improvement of relations and communications with employers through employer relations representatives (National Employer's Committee), (2) presentation of LMI by local labor market and short-term information (3,114, 142,143), (3) reward performance not just on the number of placements but also on the duration of employment tenure that follows placement (22,53), (4) improvement of clearance procedures for job referrals and openings within an economically integrated labor market or beyond area boundaries.

Lewin, et al. (73) provide the interesting observation that job creation is often a political decision, closely related to new construction and the general placement of the unemployed is not a consideration in the New York City environment.

Sources of Labor Market Information

Thal-Larsen (143), Levine (69), and the California Department of Human Resources (19)* conclude that there is a persistent demand for better local LMI by manpower practitioners, particularly CETA prime sponsors, yet the data is not localized enough to be of use. Data is most often national or regional in scope, since it has been developed by federal reporting agencies such as the Labor Department for internal governmental controls. However, LMI is still used locally, even though their origin is questionable, their estimates faulty and their application to the local market indirect. Local LMI is "stored in the heads of local E.S. staff" such as counselors and employer representatives with no provision made for its retrieval (69).

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*Now called California Employment Development Department.

The following kinds of LMI are useful: (1) job information--actual and potential openings by occupation and employer, (2) information related to occupational choice, vocational education, training programs, apprenticeship and civil service requirements, (3) employment statistics on local labor market trends, (4) community information including transportation, housing, educational facilities, and social agencies, (5) localized unemployment statistics for UI determinations, and public employment eligibility decisions.

Thal-Larsen (143), Levine (69) and Daicoff (23) have focused on the design of LMI systems. Thal-Larsen's study of LMI needs for San Francisco-Oakland and the San Jose SMSA's, identified information priorities such as current job opportunities, job prospects and demographic statistics for small areas. This requirement for localized LMI is found throughout the literature. The LMI system proposed by Thal-Larsen contains the following requirements: (1) micro-data about employment and demand by occupation, industry and establishment, (2) macro-data about the distribution of total employment, supply and demand, (3) anticipated demand by occupational characteristics, (4) information about the community and community facilities, including apprenticeship, licensing, unions and commuting patterns. Levine (69) who concentrated on LMI in relation to local E.S. service concluded that the local offices have a considerable amount of local labor market information but that there is no organized method for retrieving this information. Local LMI is specifically addressed in a study by Ultrasystems, Inc. (148). Pilot projects were conducted in Baltimore, Indianapolis and Miami. In each of these pilot areas, the needs of local LMI users, as well as the sources for local labor market information were examined. The relative importance of selected LMI components to various user groups including CETA prime sponsors was reviewed. The final report on this project also contains a review and integration of much of the literature concerned with LMI.

Daicoff (23) conceptualized an LMI system for the construction labor market in Kansas City and underlines the importance of the work referral system in construction. His study along with others by Cohen (22), and Mills and Markowitz (75), constitute part of an OMRD sponsored effort to improve job matching.

Efforts to Improve Labor Market Information

Ullman and Huber (146) proposed that efforts to improve LMI are the results of three considerations: (1) a more efficient labor market information system might reduce frictional unemployment and help achieve a better trade-off

between unemployment and inflation, (2) a lack of job info mation handicaps many in the labor market, and (3) placeme operations of the E.S. need to be strengthened.

Several attempts have been made to improve the deliv of LMI from intermediaries to users. These have taken sev directions, improvements in the employment service, improv ments in occupational information, and, improvements in jo matching through the use of computers.

Employment Service

A recent innovation in the E.S. has been the provisi of a wide selection of job openings and general LMI as qui as possible in a self-service job information center. Ins of withholding job orders until an interviewer has seen th applicant, the job information center allows job ready app cants to look at available job orders. Print-outs of job openings and general labor market information, such as not of civil service examinations, are now posted and microfi viewers are available. After finding a desired job open i the job information service the applicant is then screened by an interviewer who will make the referral. The postin job orders in the job information center and the use of a computerized job bank was a major change for the E.S. The has been some debate within the E.S. about whether the nam and address of the company should also be listed in the jo information center. Listing the firm's name and address would allow the applicant to apply directly to the firm an also to self-screen if the address was inconvenient or the firm otherwise undesirable. On the other hand, the E.S. might not receive credit for the placement.

The E.S. job information center thus contains a com puterized listing of job openings available to applicants for use in a self-service job selection process. Librari of locally developed job search and career guidance mater are also displayed. Ausmus (8) describes the initial exp mental installation of JIS in ten labor market areas or c prehensive model cities (COMO). The job bank provides a daily computerized listing of E.S. job openings. Job ord may be listed in a variety of formats. A job bank format especially designed for applicant use presents job order information in a column format which groups data on wages benefits, and applicant characteristics. This format was tested in the Memphis local office. Ausmus (8) describes the three categories of applicant needs developed in the COMO model: (1) service for applicants who are job ready and need nothing more than information on where to go to apply for a job, (2) service for applicants who are poten tially job ready but need some assistance, and (3) servic

for the disadvantaged applicant who requires extensive help to compete in the job market.

The COMO model was designed to save staff time by not initially interviewing all applicants, to provide more intensive attention to the needs of Service 2 and 3 applicants. The three areas of service delivery are described in a study by Greenleigh Associates (45).

Abt (1) evaluated applicant services in COMO cities based on survey data which sought to determine the effectiveness of the three areas of service. This study concluded: (1) COMO may be using staff more efficiently through servicing more applicants and providing some extra staff time, (2) disadvantaged applicants may be more efficiently served by COMO than non-disadvantaged applicants, and (3) COMO staff had a higher output per staff member than non-COMO staff (68.1 applicants per staff member per month as compared with 37.6 in non-COMO regular services). The quality of service, (matching employer requirement with work characteristics), however, was judged not to have been improved. The COMO cities placed only nine percent of their applicants in permanent jobs, defined as those expected to last at least three weeks, and placed a smaller percentage of all applicants than non-COMO cities. Using retained placements as a measure for Service area 1 and 2, COMO was judged to be equal in its ability to render service at both levels. This indicated that applicants were almost equally job ready in the two areas and a three area system may not be necessary. Abt concluded that the COMO model is only partially confirmed and does not constitute a major improvement since there was no distinction between areas one and two and no change in the quality or duration of placements. Presently, only the job information center portion of the COMO model has been retained.

Ullman and Huber studied the job bank (146,147), its impact on LMI and the effects of feed-back assessment on program conduct. The job bank, developed by the Maryland Department of Employment Security early in 1968, is a computerized record of all job openings listed with the E.S. in a particular area. This was a drastic reorganization of E.S. operations. Ullman and Huber concluded that local job banks were not achieving more efficient man-job matching or improving referrals to placement ratios, job banks were not improving manpower services to the disadvantaged or helping reduce frictional unemployment, job banks were not effecting regular or disadvantaged placement, and feed-back on the program was accepted where it was positive and not accepted where it was negative although the administrators of actual programs did sometimes act upon recommendations for improving job banks. Myers (94) reports the system offered no advantage to minority applicants in the Boston area.

Smith (122) agreed with Ullman and Huber (146,147), that the job bank appeared to have no effect on placements. He concluded that current data did not allow a complete analysis of the benefit of the E.S.'s job brokerage functio Ullman and Huber suggested the following improvements: (1) increased employer relations and interviewer specializa tion, (2) encouragement of a larger number of local offices rather than centralization, and (3) an emphasis on first day referrals. Ullman and Huber evaluated the job bank at an early stage in its development and many of their recomme dations have since been acted on.

In California, a joint Federal-State task force on jo search information sought to determine the direction and focus of E.S. LMI (19). This task force concluded that loc personnel were ignored and that there was a lack of "live" information. Three new staff assignments within the labor market information system were recommended--labor market information specialists, central labor market information coordinators and labor market information consultants. Cob (22) made similar recommendations.

Occupational Information

Occupational information is aimed at those in school making career choices, those entering the labor market, an those in the market considering an expansion of their caree choices. The purpose of occupational information is not t provide job information about specific openings but rather to provide information about careers. Occupational inform tion includes training or entrance requirements, job and w possibilities, sources of further guidance material, and types of firms who employ workers in specific occupations. One of the studies based on data from the National Longi- tudinal Survey concluded that largely irreversible educa- tional decisions are made by high school students on the basis of relative ignorance (157). Differences in occupa- tional knowledge and goals among youngsters of different socioeconomic status is also pointed up in the study.

McKinlay (81) reported on his research and developme project to develop a career information system in Oregon. The objectives were to develop an interagency consortium t gather accurate and current national, state and local occu tional information, to set up a multimedia format and to m it available to users particularly in the educational syst and social service agencies. His report describes the arrangements made for receiving and analyzing data concern occupations and writing up descriptions of 225 occupationa groups covering ninety percent of Oregon's employment, and the system for delivery of information through both comput ized and manual techniques. Users of this system may

retrieve occupational information on-line or may fill out questionnaire in order to obtain a list of occupations, us ful for career exploration. This list is obtained by comparing applicant's responses to the questionnaire with the occupational characteristics in the system. The Oregon pr ject reported considerable use of the system in the state' secondary schools and two-year colleges. A useful table which lists sources and types of labor market information contained in the report. Another aspect of the project is the Manpower Clearinghouse, an attempt to provide localize LMI. The project determined the indispensable role of occupational information from sources other than E.S. and user preference for extensive occupational information.

The occupational information delivery system (OIDS) being developed by the Los Angeles Research and Statistics Section of the California Employment Department is an experimental project using microfiche to provide occupationa information, including information about employers who hir in specific occupations in the labor market. OIDS is dece tralized within the Los Angeles area to take into account several labor labor markets rather than a single Los Angel market. The approximately 14,000 occupations listed in Volume II of the Dictionary of Occupational (DOT) are arra into 114 job clusters of related occupations. General inf mation applicable to all of the occupations in the group a localized information about a specific occupation in the group were put on microfiche. The most significant contri bution is the localized information for "high volume" occupations which includes employment outlook, usual wages employer requirements and major employers. Microfiche and viewers were installed in an E.S. local office, a vocation rehabilitation office and a junior college. The system is useful to counselors and those seeking career changes or choices. It appears to be most helpful to an applicant wh is able to understand the wide variety of occupational possibilities that are associated with particular skills. It is also useful for workers whose skills are adaptable t a wide variety of occupations. A crosslisting is currentl being prepared.

The Manpower Administration is currently encouraging the development by the states of occupational information systems through a grants program. Eight states have been selected to develop occupational information systems (OIS) to help young people and others make better career choices Average grants of $300,000 will go to Alabama, Colorado, Massachusetts, Michigan, Minnesota, Ohio, Washington, and Wisconsin. The grants will support state efforts to compi and analyze current occupational information from a variet of sources and disseminate it to a wide range of users.

Each OIS will be developed as part of MA's National Occupation Information Service. Typical information provided through an OIS will include job duties, current employment, job outlooks, earnings and fringe benefits, and legal, educational, and training requirements for entry. Provisions will be made to relate occupations to personal interests, aptitudes, and abilities.

A key objective of the OIS grants is to develop active policymaking boards to direct OIS activities. The boards will be composed from state and local agencies involved in the production and utilization of occupational and labor market information. CETA prime sponsors and business and labor organizations will be represented on the boards as well as state E.S., vocational, and education agencies. Other important objectives of the OIS include increasing public awareness of sources of occupational information, helping potential labor force entrants learn about career options and explore vocational possibilities on their own, training user agency staff so they can foster the use of career information in counseling and instructions, and supporting programs of career education, career and employment counseling, and manpower and educational planning.

Job Matching Systems

The use of computer assisted job matching systems in the labor market were mandated by a 1968 amendment to the Manpower Development and Training Act, Title 1, Section 106. Its use is based on the social philosophy that faster and more efficient matching of workers and jobs will benefit society in general by reducing frictional unemployment, raising the firm's and nation's productivity, and providing for greater worker satisfaction on the job. More specific arguments in favor of computerized matching systems are, the computer is capable of rapidly handling large amounts of data thereby reducing referral time and unemployment time, and workers may be matched with higher paying jobs which are of longer duration (19).

A few experimental systems have been developed for specific labor markets (22,75). Markowitz, Mills and Dunlop (75) concluded that a computer based labor market information system for the construction industry would be very beneficial since it would provide the industry with up-to-date information on manpower availability and demand. This would answer questions raised by employers' and the unions' concerning the number of trainees and entry restrictions. At present, job referrals are decentralized. Union locals and employer associations are the key to this local market and their cooperation is essential to the

development of a system. The authors' (75) are concerned about the key role of the business agent in the construction labor market and his potential resistance to computerization. In order to be efficient, a job matching system should consist of more than one local union. The report lists several uses of the computer in the industry. Most are used for record keeping, with the exception of Local 3 of the Operating Engineers which has a computerized job referral system in northern and central California. Although the authors (75) concluded that no additional development in the state-of-the-art of computer technology is necessary, what is crucial to the successful development of a system in construction is the business agent, whose position depends on his job referral ability. These conclusions are supported in the Daicoff study (20).

In a follow-up study (76) the authors developed an experimental local LMI system for the bricklaying trade in Vermont. It consisted of components for keeping track of personal records, fund contributions, job referrals, labor market forecasts, and dues collection. The authors concluded that a basic computer language system can be developed. Some interesting aspects of this study are the references to other LMI studies and the assessment of costs for installing a system. This experimental program appears to be most applicable for a particular trade in a readily identifiable market, and for record-keeping. It appears less applicable for job referral and forecasting for occupations in less specific labor markets.

The Cohen study (22) is a research and development project that produced a job matching system, investigated modeling of the local labor market, and compiled sources of LMI. Cohen tested his LMI system at the Denver Youth Opportunity Center (YOC). The system relied on a computer at Wayne State University which was connected by telephone with the YOC in Denver. It was hoped that the system would provide increased and more efficient sources--improved placement, applicant information and local office activity data. Each night information was transmitted from Denver to Wayne State University where it was processed, updated and made accessible to the staff of the Denver Youth Opportunity Center on a terminal. An evaluation of the experimental system showed that use of the system depended on the availability of the system and terminal, and particularly the timeliness of the information. Cohen recommended increased training and improved access to information already collected through regional information centers, an LMI administration separate from the E.S., use of computer models to aid planners, and use of synthetic data. A major conclusion was also that computer assisted matching, particularly on-line information retrieval systems, should improve the quality of placements rather than the quantity.

Recommendations

Practitioners should concentrate program efforts on labor market intermediaries, public and private employment agencies, unions and educational institutions, which effect the labor market.

Establish a formal mechanism for inventorying, categorizing and distributing local labor market information generated by users and intermediaries. It is most feasible to undertake this in smaller cities and rural areas. Select a coordinator by local area, state or region.

Include vocational education in local planning and encourage vocational education to structure and revise their curricula to meet current needs. Employers should be involved in vocational education planning.

Encourage occupational guidance at all educational levels, particularly in the middle grades and early in high school. Occupational guidance centers should also be set up out of educational institutions. Occupational information should widen rather than narrow choices.

Establish formal labor market intermediaries in the rural labor market. Intermediaries should match part-time farm workers with non-farm job opportunities as farming opportunities decline.

Increase the accuracy of LMI for migrant workers to include job opportunities, wage rates, and facilities at the job. The social services should be able to follow workers from job to job.

The E.S. should not be responsible for all LMI efforts. A concentration on the disadvantaged will improve its productivity.

Encourage the evaluation of placement efforts of labor market intermediaries by the duration on the job of placements.

The R&D that has been completed on LMI provides practitioners with extensive guidelines to what is available, the sources of LMI, and guidance to what LMI is most desirable in local markets. Further research, at this time, is not necessary.

Computer assisted job matching systems are recommended for specific occupations or small, closely related labor markets. Job matching systems require frequent updating, constantly available equipment and a thorough knowledge by

users or operators of the system. These systems are not feasible for larger markets and are most appropriate for segmented markets. Efforts to obtain on-line job matching through computer systems should not be a national R&D priority, although such efforts could improve the quality of placements.

Increase real world work opportunities for prisoners either in or out of correctional facilities. Provide them with more complex work opportunities, rather than housekeeping chores or laboratory work.

Develop consortiums to avoid the problem that the regions where the jobs are maybe different from where job seekers are located. Balance-of-state and urban planners should cooperate in program development.

The E.S. should develop its own clear goals and priorities at all levels. It is particularly important, as the E.S. contracts with CETA prime sponsors, that the E.S. maintain a clear view of its overall objectives.

The National Longitudinal Survey is a potentially important source of data for policy decisions. It would be useful if a summary report were prepared and if the data were also analyzed by labor market topic in addition to age, sex groupings. Researchers are encouraged to explore use of the data in investigations of the labor market.

V. SELECTION AND ENTRY

This chapter discusses selection in the external market. Literature concerning selection and entry has concentrated on the employer side of the labor market. A conceptual framework is provided by the job search model and human capital theory. Employers search for and select employees whom they expect are most easily trained and who will yield the greatest relative productivity to the firm (61,110). Employers will continue to screen applicants as long as the costs of continued search are less than the expected gain from the additional productivity of the sought after worker. Most employee selection is conducted within the firm's internal labor market--the firm promotes or moves workers laterally to new jobs. The internal market is discussed in the next chapter.

OMRD research has focused on alternative employer screening devices and the relative importance of each device as barriers to employment. One major contribution has been in the area of apprenticeship. Early research assessed apprenticeship training as a barrier to job entry. Later work was aimed at enhancing minority opportunity in apprenticeship programs. The classification employed in analyzing the workers side of the labor market is also used to assess the relative effectiveness of employers selection techniques. Formal selection methods include apprenticeship, licensing, want ads, the employment service, private employment agencies, school and college placement services, trade journals, and professional associations. Informal methods include notices to employees about an opening and direct hiring.

General consensus is that employers use informal recruitment methods more often than formal ones. Formal channels are turned to for hard-to-fill positions, when there is a quick expansion in the demand for labor, or in the unionized construction industry (43,119). Sheppard and Belitsky confirmed the role of formal channels in tight labor markets.

Selection techniques are closely tied to cyclical changes in the economy. When labor is plentiful, employers will raise their entrance standards and demand higher qualifications, some of which may be unnecessary. When labor is scarce, towards the end of an upturn in the business cycle, employers will reduce their entrance requirements.

Formal Methods

Licensing

Licensing is a process in which those who will work in a particular occupation are selected. The most extensive study of licensing as a method of selection and entry was conducted by Shimberg, Esser and Kruger (120). They defined licensing as a generic term which encompasses all forms of regulation. A license gives the practitioner legal authority to engage in the occupation or profession. Most licensing is mandatory, that is, those who practice must be licensed by some agency of government. Certification or registration, by contrast rarely require governmental or legal sanction. The argument in favor of mandatory licensing is that it is necessary to protect the public or that certain occupations are so closely associated with public health and safety that without regulation the public would not have protection against incompetent practitioners. This emphasis on public health and safety originally limited regulations to occupations closely connected with public health. New occupations over the years, however, have been added to those that are licensed, in order to protect the public from fraudulent or incompetent practitioners. Shimberg, Esser and Kruger, in an examination of licensing practices across the country, concluded that licensing excludes and limits workers to a particular occupation thereby keeping up earnings rather than protecting the public health and safety. Their conclusions are based on the following: (1) licensing boards or regulatory agencies as currently constituted are usually composed of practitioners from the trade or profession rather than the general public or experts, (2) licensing procedures are haphazard and sufficient attention is not paid to sound testing procedures, (3) licensing boards cannot efficiently serve the dual tasks of licensing the occupation and enforcing standards and regulations, (4) there is general failure to verify a practitioner's competence as a condition for license renewal; an individual is usually licensed at the entry level immediately upon completion of training and then is recertified routinely without any effort made to establish that he has kept up with the field or maintained skills, (5) licenses are given on a restricted geographic basis by city, county or state; this prevents license holders from freely moving about and there is little enthusiasm among jurisdictions for reciprocity.

Shimberg, Esser and Kruger (120) examined licensing in the health occupations (practical nurses, dental hygienist and ophthalmic dispensers), construction trades, barbering, cosmatology and transportation. The authors are very pessimistic about the possibilities of bringing about voluntary change by those who control licensing or by public officials

or state legislature. They believe that needed changes may only occur through the courts or civil rights agencies. The authors recommend: (1) setting of reasonable standards of performance, (2) expanding the scope of the license to the broadest geographical area or reciprocity among states, (3) reviewing and completely changing procedures in written and performance tests, (4) keeping licensing to a minimum number of occupations. Their strongest normative judgments are based on the view that an individual's right to earn a living or to move may depend on the decisions and activities of licensing boards. In some cases, application conditions are more stringent than the law requires.

Apprenticeship

There are several ports of entry into the crafts: formal apprenticeship programs; training in unlicensed or non-union shops; training during the summer; informal training by watching and assisting others, which is known as picking up the job, or stealing the trade; special joint community agency and industry pre-apprenticeship programs; and training in the armed forces. Early OMRD research focused on the relative importance of these alternative ports of entry, in order to determine how much of a barrier formal programs are to admission to the crafts. Formal programs have in the past limited their enrollment to white workers. The crafts, which are heavily unionized, also offer job security and high relative wages for all members, black or white (33).

Most craftsmen enter the building or construction trades by informal methods outside the apprenticeship system (33,34,35,78). Selection and entry to the crafts is directly related to the market structure of the industry and collective bargaining. Contract construction is comprised of three sectors--highway and heavy commercial, industrial and, homebuilding. There are two major types of contracting firms, general contractors who execute entire projects and speciality contractors who do parts of larger jobs. A vast majority of contractors are small firms, usually specialty contractors, who hire a few workers. The craft union serves as a personnel department to screen and refer applicants to these firms (43). This is particularly true for commercial, highway and heavy construction and less true for homebuilding which is not heavily unionized (78). Membership in the union, therefore, serves as a selection device for the largest proportion of the construction industry, since unions usually give job preferences to members (78). Unions not only recommend workers but are also represented on apprenticeship boards which administer training programs. The role of the union in controlling entry and setting standards, however, differs widely among the crafts.

Marshall, Franklin and Glover (78), in a recent study of entry into the construction trades, make the point that the relative importance of different ports of entry are not uniform among the crafts. Training requirements differ and union enforcement is different among the crafts. The mechanical trades imposed the most difficult requirements. Union enforcement of entry requirements appears to be directly related to the degree of competition in labor supply. Training requirements are less likely to be enforced where there is considerable job competition or non-union labor. In heavily unionized areas and where there are expanding job opportunities, training and membership requirements are not strictly enforced. Under these less competitive conditions informally trained workers, union members from other jurisdictions and non-union labor with or without permits may enter into construction work. Those who enter "through the back door", without serving formal apprenticeships are usually upgraded to journeymen status. In this manner unions control their jurisdictions.

Marshall, Franklin and Glover (78) reviewed admission standards in several crafts in construction: bricklayers, carpenters, electricians, iron workers, plumbers and pipe fitters, and sheetmetal workers. They drew four conclusions from their review: (1) there is great similarity between entry standards of different locals within any international, (2) union admission policies can vary from quite lax to highly stringent as the degree of preparation in non-manual skill required in the trade increases, (3) union entry standards do not fit any a priori hypothesis. The hypothesis that unions desire to restrict the size of membership in order to maintain their wage rate is not born out, for those crafts where skills are most easily acquired were found to have the lowest entrance requirements.

The authors concluded with regard to the construction labor force that there is a core of well trained mechanics who work practically full-time. This core is supplemented by less qualified men from other trades and workers from other areas during periods of increased construction activity. The following conclusions can be drawn concerning apprenticeship as a port of entry: (1) graduates of an apprenticeship program are more likely to become supervisors and in this respect apprenticeship acts as a screening device for promotion, (2) few workers receive their training outside of the construction industry for jobs in the industry, (3) long periods of informal training may take place through non-apprenticeship routes, (4) vocational education programs do not lead directly into the craft occupations, either in apprenticeship or journeyman status, (5) entry by non-apprenticeship routes is widespread. In the bricklayers and carpenters union entry is by working in the laborer or helper

category while in the other trades entry is through on-the-job training or by employment in an open or non-union shop, (6) there is considerable flexibility in union procedures for admission into journeyman status, (7) flexibility in the admissions and permit and traveling card system should be encouraged to allow the industry to adjust for changing and seasonal demand.

Foltman (33) concludes that although small in numbers, apprenticeship training prepares the core of the country's skilled work force. His report recommends that the government play an active role in rigorous enforcement of anti-discrimination laws and upgrading.

Want Ads

Want ads are not generally an important recruitment source but may be used for selecting workers with particular skills. The Olympus study (163) found that classified help-wanted ads were of value to a comparatively small number of employers who do most of their recruitment through want ads. Approximately sixty percent of the employers in San Francisco and Salt Lake City placed ads only when specific vacancies occurred and want ads were considered only as a last resort or when vacancies became difficult to fill. This study supports Sheppard and Belitsky (119). The Olympus study (163) concluded that the use of ads relates inversely to the existence of alternative techniques for selection and placement. Labor market intermediaries such as unions provide an alternative, particularly in construction. Construction firms in San Francisco, a heavily unionized market, did not use want ads while construction firms in less unionized Salt Lake City did use want ads.

Want ads are employed for the recruitment of professional or white-collar workers, where qualifications can be identified. This study supports Gordon and Thal-Larsen (43) findings in their study of the Bay Area labor market.

Private Employment Agencies

Private employment agencies are most often used by employers to recruit white-collar rather than blue-collar workers. Employers in the Bay Area study listed private employment agencies as the leading formal channel for white-collar workers. When white-collar workers, other than clerical, were recruited from outside the local labor market private employment agencies were also used. Sheppard and Belitsky (119) found that in the Erie, Pennsylvania labor market employers used private agencies to recruit clerical

workers. For small employers, private agencies may serve as a personnel department and screen applicants (43,119).

School and College Placement Services

School and college placement services are not important channels for recruitment. Gordon and Thal-Larsen (43) found that placement services are almost never used by employers looking for blue-collar or service workers and used infrequently as important sources of clerical or sales workers. They are most important for entry into professional occupations and less for technical occupations.

The Employment Service

The employment service plays a minor role in recruitment by employers. Employers use it as a source of blue-collar, clerical and minority workers. Gordon and Thal-Larsen (43) found that larger employers were more likely to use the employment service. This tendency may be explained by the willingness of larger firms to routinely place orders with the employment service as good public relations or because larger companies are less likely to hire through the unions. The authors concluded that some employers routinely registered job openings with the California Department of Employment without regarding them as an important source of recruitment.

Employers first adjust to increased demand for labor by increasing the hours of work, overtime and upgrading, rather than recruitment (10). Gordon and Thal-Larsen (43) found that continued shortages cause employers to intensify their recruiting efforts and lower selection standards and job requirements rather than raise wages. Firms respond to shortages of low skilled workers by relaxing selection standards or altering job content. Firms responded to market shortages of professional and clerical workers by raising wages.

Informal Methods

Employers use informal recruitment channels more often than formal channels. Gordon and Thal-Larsen (43) found that firms were more likely to hire low skilled workers at the gate. This was true for both white-collar and service groups. Forty percent of the employers in their survey indicated the use of informal channels for all white-collar workers, particularly for sales jobs. Other studies indicated that recommendations from their own employees was the

technique through which employers found most of their wor
Recommendations serve as a costless screening device for
employers.

Screening

Screening has a dual role in the labor market. It
allows the employer to hire the most productive employee.
However, screening may also serve as a discriminatory dev
to exclude certain workers from employment (52). OMRD
research has concentrated on screening as an exclusionary
device. Exclusionary procedures include differential sta
ards applied to various applicants for a particular job,
use of arrest records to screen applicants (83), testing
procedures (52), personal interviews, performance tests,
age limitations (24,74).

Hiestand in a review of the literature on discrimin
tion (52) points up the debate between those who maintain
that screening devices have a built-in bias and those who
argue that the labor market itself has a built-in bias.
The studies of Miller (83) and Diamond and Bedrosian (24)
provide evidence that screening is discriminatory. Mille
(83) found that arrest records and civil service statutes
generally act as barriers to employment for individuals w
a record. The language of civil service and personnel
directives may also exclude large numbers of individuals
with criminal records. Obstacles begin with the job appl
cation form, where statements deter individuals with crim
records from filling out the application form. He recomm
federal regulation prohibiting all public or private empl
from asking about arrest records on job applications or i
A different conclusion based on different evidence was ar
at by Gordon and Thal-Larsen (43). Miller looked at regu
tions and forms, while the Bay Area study asked employers
for their reactions. Employers in the Bay Area replied m
often that a police record did not preclude hiring, eithe
because the firm didn't know of the record or because a
union did the screening. Gordon and Thal-Larsen (43) agr
with Miller (83) with respect to government employment in
that the government does set an absolute ban on hiring
workers with police records.

Diamond and Bedrosian (24) also support the evidenc
in favor of built-in biases in screening. Their study o
hiring requirements and the employment of the disadvanta
found that overstated hiring requirements and preference
are a major cause of costly turnover. They considered ma
hiring standards to be unnecessarily high in relationshi
the needs of job performance. There was a persistent ab
of written statements of hiring requirements in virtuall

of the occupation-industry groups studied. The decisions of employment interviewers were more likely to be made on a basis of subjective factors as a result of the absence of written standards. The Educational Testing Service (155) reported that licensing boards sometimes imposed eligibility requirements that were excessive with regard to job performance standards. Tests and other qualifications may have been set at an earlier time and no check is made as to whether they are necessary or still valid (24,120).

Hiestand (52) defined the inherent bias of the labor market. In a highly informal labor market family connections and word of mouth play an important role. This type of market works in favor of white workers since white workers in better jobs recruit other white workers so that few Negroes show up as applicants in jobs where they are not already well represented in the job or occupation. Oaxaca (103) found that discrimination against women in the labor market accounte for approximately seventy-four percent of the male-female wage differential for whites and ninety-two percent of the differential for blacks.

Employer selection standards have been subject to critical evaluation in recent years. Particularly at the lower occupational levels, educational requirements and selection tests are often not clearly relevant to job requirements. Selection methods may arbitrarily screen out minority group applicants and other job seekers with low levels of education. Gordon and Thal-Larsen (43) reported that the high school diploma was the major screening device. There was a distinction, however, between the smaller and larger firms in their study. Smaller firms were much less likely to require a high school diploma than the larger establishments. Larger firms were more likely to have a clearly stated minimum educational requirement. High school graduation was cited as evidence of promotional potential (24,43). Screening was also found to limit the number of qualified applicants (24,43,119). Diamond and Bedrosian (24) make the point that self-imposed labor shortages unnecessarily raise employers costs. Sheppard and Belitsky (119), however, claim that rigid screening requirements may cut costs by limiting the final stages of selection to the most qualified workers.

In the building trades unions will screen potential employees on the basis of union sponsored training and union membership. Marshall and Briggs in an early study (79) examined the discriminatory effects of these requirements. They looked at apprenticeship training as a selection process and found that for some workers the selection process is related to family ties in those unions that have strong father-son relationships. Half the construction tradesmen typically had fathers in some of the skilled trades. Those

without relatives must hear about openings and qualificati from employers for whom they already work, the union, or t employment service. Marshall and Briggs concluded that wi recent exceptions there had been very few Negro apprentice in the United States. According to Census figures there w 2,190 Negro apprentices in 1950 and 2,191 ten years later. In 1960, the only apprenticeship classification in which Negroes approximated their proportion in the total work force was the building trades. Negroes were concentrated primarily in labor jobs, tile trades and carpentry. Carpentry showed up again in a 1965 survey as the constructio trade relatively the most accessible to Negroes. Marshall and Briggs concluded in 1966 that "while there have perhap been some significant changes in attitudes in recent years there can be little question that racial prejudices and di crimination by unions and management have been major reaso for the absence of Negroes from apprenticeship programs."

A later study comes to different and more hopeful co clusions. Marshall, Franklin and Glover (78,80) found tha minority membership in building trades unions had increase significantly among both apprenticeship and nonapprentices trained journeymen. These authors conclude that unions ha not tried to "close the back door" to minorities and that minority participation in apprenticeship programs has grow impressively in recent years. They endorse outreach programs designed to recruit minority youth for participation in apprenticeships and advise those who have not received formal training to go through journeyman upgrading progra

Discrimination towards women with respect to entry apprenticeship programs virtually excludes them from the crafts (74). They are confined to those jobs with little skill content as defined in the Dictionary of Occupational Titles (DOT). The commonly given reason for the blanket exclusion of women from many apprenticeships is that the jobs are too dirty, too dangerous and require heavy lifti Age restrictions also bar women from apprenticeship train A woman who returns to the labor market after raising a family is often barred from apprenticeship by maximum age limitations on entrance to training.

Programs to Aid Entry

Several research and development projects encourage the entry of minority and disadvantaged workers into jobs Some projects have concentrated their efforts on admissio into apprenticeship based on the rationale that the craft offer stable, high wage employment. A Wisconsin research and demonstration project sought to isolate, analyze and minimize barriers for the participation of women in the

skilled trades (74). This project developed brochures a film which were aimed at dispelling employer prejudices towards the employment of women. The project initiated changes in state employment and apprenticeship agencies eliminated sex stereotyping and developed new apprentice programs for women in day care and health occupations. women were brought into apprenticeship programs there wa high level of employer satisfaction and a relatively low dropout rate. Women were working for less pay in the sa jobs as men who had undergone apprenticeship training. Wisconsin study recommended: (1) sponsorship of apprent ship outreach for women, (2) active enforcement of equal opportunity laws, (3) reassessment of so-called women's and codes in the Dictionary of Occupational Titles, (4) technical preapprenticeship classes for girls, and (5) w of collective bargaining agreements that exclude women f apprenticeship.

Marshall and Briggs (79) conducted a survey of app ticeship outreach programs in nine cities. Outreach is defined as efforts either through the industry, public agencies or private groups to recruit, select non-whites admit them to apprenticeship programs and to place appre tices in on-the-job training. City agencies were assign the task in Cleveland, Philadelphia and Pittsburgh. Pri groups worked with the union in New York and Detroit. T authors found that private groups working with managemen and unions were most effective. They concluded that uni no matter how sympathetic, are not going to recruit blac merely because of a moral obligation to recruit and seek non-whites. Pressure on the demand side for recruitment unions should be matched with a supply of qualified Negr applicants. Marshall and Briggs (79) recommend that the encouragement of supply should include a large increase information concerning openings. Negroes, lacking famil connections, don't know enough about qualifications, apprenticeship programs or openings to these programs. strong tie between the outreach agencies and apprentices sponsors has to be established because punitive legal measures against the industry have not proved successful

The Foltman conference papers on apprenticeship (took a different approach to the admission of minorities Conference participants called for vigorous enforcement legal measures and claimed that compliance provoked acti where voluntarism has failed. A paper by Derryck in the Foltman proceedings concluded that outreach is too littl and too late to prevent dropouts. The prevention of dro outs requires changes in customs and social attitudes ra than mere admission to the program. Derryck (33) conclu that outreach is most successful when it takes an active advocacy role, solicits feedback from the apprentices ar

when necessary, uses government enforcement agencies. The importance of retention is also underlined in the Rowan and Rubin study (117). Rowan and Rubin suggest that the high attrition of blacks from apprenticeship programs is due to the feeling among blacks that they would be discriminated against in looking for a job and would wind up with dead-end jobs. They suggest a demonstration effect that there are really jobs at the end of the line.

Rowan and Rubin also reviewed government efforts to open the skilled construction trades to non-whites through home town plans and federal contract compliance. They concluded that minority employment increased in the skilled construction trades in both the imposed Washington plan and the voluntary Indianapolis plan. In Washington apprenticeship registration increased from 13.7 percent during the year prior to the plan to 21.1 percent in the year following its imposition. Absolute numbers, however, remained small.

Marshall and Briggs evaluated MDTA and pre-apprenticeship programs as sources of entry into firms and found resistance and distrust of MDTA as a form of recruitment. This was attributed in part to the response that MDTA was a program for dropouts. In the Bay Area about fifteen percent of the employers had hired MDTA graduates (43). These were usually the larger companies who were able to hire graduates over union opposition.

A research and development project was conducted in California to develop new job opportunities for the disadvantaged within the state civil service system (18). Grants were given to increase governments capacity to hire the disadvantaged and provision was made for the employment of welfare recipients. These efforts required the modification of the merit and civil service systems through the waiving of requirements. This experience, the Careers Opportunity Development Program (COD), indicated that the basic position classification system had to be redesigned to allow for new trainee entry levels and new career ladder classifications. An evaluation of COD concluded that the program provided increased employment opportunities, particularly for ethnic minority groups who would not otherwise have been hired in governmental state offices (4). This hiring was accomplished only with the use of special outside funds and would not have taken place solely through job restructuring. Trainees learned the regular work of their departments and then moved into regular entry or journeyman positions. Departments hired COD trainees only with special salary support and close monitoring. State agencies remained reluctant to hire trainees in positions budgeted for journeymen workers.

Recommendations

Practitioners in cooperation with licensing agencies, unions and professional groups should work towards the reform of licensing with the following objectives: revising licensing exams to bring them up to date, informing intermediaries and the public of requirements, reciprocal arrangements among cities, counties and states for licensing, and a moratorium on licensing for new occupations, unless strong proof is presented of its need.

Practitioners should cooperate with community groups, unions and employers associations to recruit and encourage minority workers to enter apprenticeship programs and to demonstrate that actual jobs are available at the end of the training.

Aim first at the admission of minority workers into the building trades and then at programs which lead to journeymans status. Encourage apprenticeship courses since this is likely to lead to stable, full-time employment.

Inform all employers of equal employment opportunity requirements and aid employers in the establishment of clear personnel procedures with the objective of equal employment opportunity. Written statements of hiring requirements, based on objective standards, will aid the elimination of unnecessary requirements. These statements would assist employment interviewers in the achievement of managements preferences for non-discriminatory hiring.

Employers are encouraged to develop only those screening devices aimed exclusively at obtaining the most productive workers.

Civil Service and merit rating systems should not request arrest records on job applications except where it is closely connected to future job performance and responsibilities. The general ban on not hiring workers with arrest records should be reevaluated to justify this requirement for each governmental and private industry job and to specify the level of offense necessary for exclusion.

Work with apprenticeship boards to encourage the admission of women into apprenticeship programs.

Modify merit systems to allow for new trainee entry levels and new career ladder classifications. Practitioners should work with state personnel departments in the reevaluation procedures. Government employment is a promising avenue of increased employment opportunities for the disadvantaged. R&D is recommended to find approaches to accommodating new requirements and classification without the elimination of the civil service system.

VI. INTERNAL LABOR MARKETS

Promotion and upgrading for most workers takes place within the firm. Since it is within this internal labor market that most recruitment, selection and placement occurs it is important to discuss OMRD research and development in this area.

Theory

The principal recent conceptual work on internal labor markets was done by Doeringer and Piore (26). The internal labor market is structured by a series of administrative rules and decisions which govern promotion. Workers move into the internal market through ports of entry. Promotion is gained by most workers, after entry, not by moving to another firm but by moving up within the firm. The justification for internal promotion may be explained by human capital theory. There is an incentive for the employer to promote from within since the investment he has put into his workers, such as costs of training, are recaptured only through their continued employment. The possibility of promotion also provides an incentive for employees. Doeringer and Piore define different types of internal markets for various occupations and distinguish between internal markets that are very narrow, offering few promotional possibilities and those that offer a large number of promotional possibilities. Internal markets have become more complex because of skill specificity, on-the-job training and informal practices. Freedman (37), found that men employed by a utility company, who had military training, were more likely to be promoted. The literature predicts that the characteristics of the internal labor market will have the following effects on employment and income: (1) recruitment is limited to specific levels, (2) displaced workers may find that they cannot be reemployed at the same wage and status level as their last job, (3) the possibilities for promotion are defined by the size of the internal labor market, (4) internal rules or custom may impede efficiency and equal employment opportunity.

The work of Doeringer and Piore provides a framework for understanding the internal market for blue-collar jobs, civil service workers and technical and professional employees in large organizations. It is related to personnel

practices such as job analysis and wage and salary administration, see particularly their Chapter 4.

Promotion and Upgrading

OMRD work on promotion and upgrading has focused on two issues--possibilities for promotion within firms and relationships between education/training and promotion/upgrading (13,15,26). Both issues have implications for minorities and women. The first issue, concerns the possibilities for the promotion of minority group members who have recently entered the internal market. The second issue focuses on whether publicly funded training efforts can increase promotional possibilities for minorities and women.

Fairchild (24), Freeman (37), and Steinberg (131) have examined promotional possibilities. Fairchild found in a study of eleven industries that some offered an upward progression while others offered very little or none. Promotional possibilities were closely related to the product and technology of the company as well as rules, such as seniority, which are often collectively bargained. Industries with heavy and production work offer fewer possibilities for a steady upward progression. Since technological change takes place slowly firms can easily adapt the technology to manpower requirements. The greater the skill transferability from one job to another and the greater the ability of one employee to move to another section of the operation, the less was his/her upgrading opportunity. There is greater opportunity for mobility where there are rigidly separated skill groups. Potential ability is considered more important for promotion when employers need higher skill levels. There is little occupational mobility from semi-skilled to skilled jobs (43). Ornati (106) supports this. He found in one firm with six hundred employees that only one employee had progressed in five years to a skilled trade. Brecher (15) also concluded that internal movement was limited.

There is general agreement that when promotion does take place it is almost entirely within the firm. Gordon and Thal-Larsen (43) found that ninety-one percent of the firms in their study that had clearly established promotional possibilities emphasized promotion from within. This was particularly true for positions under civil service and collectively bargained agreements. This finding is supported by Freedman's (37) study of a utility where upgrading took place within the limits of the seniority and ability clauses of the collective bargaining agreement.

Mobility is restricted if hiring is limited to ports of entry and promotion is internal and often confined merely to a wage increase. Steinberg (131) looked at upgrading, and found that those who stayed in a given firm were most likely to receive pay increases. Brecher (15) found little mobility between firms. Workers are usually hired into a company and remain within it, leaving only when discharged. Freedman (37) has characterized the process of entering and remaining within an internal labor market as "work establishment." She traces the progression of youth into the labor market. The National Longitudinal Surveys also present data on the early years in the labor market. These surveys found a considerable amount of early mobility (138). Young workers may move from one firm to another until they finally become sheltered by internal rules and customs. Doeringer and Piore (26) pointed out that workers in internal markets are sheltered from the competition of the external labor market. Adult male workers indicated they would not change jobs for unorganized work offering higher wages (156). Freedman concluded that promotions occurred in the early stages of employment in a firm, when workers get closer to the top of their skill category they receive occupational upgrading, that is, wage increases and title changes without a change in tasks.

There is little relationship between education and promotion (15). At the skilled, technical and professional levels formal educational attainment is used as a screening device for entry, however, it is not used for promotional decisions. Instead, promotional decisions are based on loyalty. At the unskilled and semi-skilled levels there are fewer opportunities for promotion. Training is short and promotion and upgrading are usually based on seniority, or a combination of seniority and ability (43).

The training that workers receive within the firm is closely related to their job. Doeringer and Piore found that formal training given by firms only consisted of the orientation of large groups of new employees to the firm's rules and procedures. However, skills training was given in a labor shortage situation. Gordon and Thal-Larsen found human relations training for foremen to be the most common formal training, while other formal courses were almost always confined to management. The lack of any relationship between training and promotion is reinforced by Brecher (15) in his study of the upgrading of blue-collar and service workers in five industries in New York City. He observed that formal training by employers, even for the more demanding positions, is the exception rather than the rule.

Berg (13) found no relationship between educational attainment and promotional opportunities, and concluded that only a small percentage of those who are hired are ever

promoted to positions where their education might be needed. Often, the most qualified worker is no longer employed by the company when the opportunity for promotion arises for he has moved on to a more attractive opportunity. Berg recommends that policies aimed at increasing promotional opportunities have a better chance of success if they focus on the demand side of the labor market rather than by encouraging more education. He devoted more attention to the managerial group than Brecher (15), Steinberg (131), and Gordon and Thal-Larsen (43) and concluded that the variables that explain promotion are loyality, longevity and certain managerial capacities rather than educational skills. Those with the greatest educational skills may even leave for other firms. Berg's view is supported by Freedman who found that worker's characteristics were poor predictors of wage variations but organizational variables counted. Personal characteristics may be a factor in passing through the company's screening devices, however, once an employee is hired, his position and prospects are largely determined by company structure (37). This occurs even though significant numbers of workers may take additional vocational training after leaving school. Results of the National Longitudinal Survey indicated that a large number of older male workers had taken some kind of vocational training outside the regular school system (156).

Seniority is the most frequently mentioned variable in the research literature which explains promotion and upgrading in the internal market for both hourly rated and salaried personnel. It is overriding in the unionized situation, used importantly in non-unionized but highly structured large corporations and, according to Berg (13), crucial among managers. Most management positions are occupied by white, middle aged, males (106).

Research and development in upgrading is related to providing increased opportunities for the disadvantaged within the firm through job redesign (44,100,102) or, increasing promotional possibilities. The objectives of upgrading are: (1) alteration of the occupational structure to provide for a greater proportion of upper level jobs, (2) an increase in the proportion of upper level jobs filled from within the organization, (3) a larger pool of manpower eligible for promotion, and (4) rationalization of the criteria used to select those who are to be advanced.*

Attempts to increase promotional opportunities in flat organizational structures have focused on allowing more

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*For an in-depth discussion of upgrading see Manpower Research Monograph 40, Upgrading-Problems and Potentialities: The R&D Experience.

entries, through the progression of more workers to the top. Generally, however, promotional opportunities were affected by contractual arrangements and seniority provisions (44, 102).

The National Restaurant Association (123) cooperated in an upgrading program. The lack of visible career paths was universally recognized as a major factor leading to very high turnover and absenteeism in food services. Smith and Pezzullo (123) concluded that the industry was not "ready" for a career progression system since it was accustomed to upgrading one step at a time without a projection of long-range career opportunities.

Discrimination

OMRD research into discrimination has focused on the effect of rules and customs on promotional opportunities, the effect of employer attitudes towards the promotion of minorities and women.

There is general agreement that there is a relationship between informal practices in the internal labor market and discrimination. Legal, administrative and organizational impediments control access to jobs (15). This is particularly true in a unionized setting or in the civil service. Opportunities for promotion in firms where non-whites are new to the company, take place after a long period of time, and are limited by the rules which effect layoffs and discharges (106). In industries where there are few promotional opportunities, such as health services (15) or the garment industry (131), promotional and upgrading opportunities for minorities are limited. Brecher found that there are numerous distinct internal labor markets in hospitals and horizontal mobility is practically nonexistent. Freedman found the same barrier in the retail trades. Vertical mobility is similarly limited by formal job requirements set by professional organizations, and reinforced by state and local licensing statutes, as well as by hospital accreditation procedures (15,120). Brecher contrasts this with the food service industry, where informal career ladders exist between entry jobs and cooks and bartenders. This is one industry where unskilled can potentially move readily into stable employment.

The National Longitudinal Survey found that black males had lower labor force participation rates and higher unemployment rates than white males (156). Blacks entered the labor market in jobs with lower socio-economic status and experienced less upward mobility. Black males were consequently concentrated in less desirable jobs and received substantially lower wages than whites.

It is difficult to find a consensus in the literature about employer attitudes towards promotion. The Research has attempted to assess attitudes. Studies by Kidder and Kidder (64), Freeman and Fields (36) and Fernandez (30) concentrate on black professionals. Kidder and Kidder tested the "expectations hypothesis", that the performance of an individual on the job depends on ability and motivation and particularly the employer's expectations. Blacks, particularly in firms with positive and well understood integration policies, were more confident of future advancement than whites, although blacks tended to be suspicious of management's attitudes and motives. Freeman and Fields (36) reached some of the same conclusions but also found some differences. They found that a large portion of blacks (42%) were optimistic about the future of black professionals in industry. This was also observed by Kidder and Kidder, however, they found that promotional opportunities were enhanced by moving among firms rather than staying with the same firm. Freeman and Field's study revealed a perceived disparity in career growth between blacks and whites. Blacks (60%) believed that they didn't have equal opportunities and filled the bottom levels of the corporate pyramid. They attributed discriminatory attitudes of white supervisors to their lack of contacts with blacks in their youth and off the job in their community.

Fernandez (30) supports the conclusion of Freeman and Fields that blacks fill bottom level management positions. He found that black managers were found in only 1.9 percent of the firms surveyed, and were located almost exclusively in low level management positions or in areas which were related to the black consumer market or black employees. The author concluded that there was substantial evidence that the racial atmosphere in which black managers worked was hostile.

The Minority Mobility Project (106) addressed itself to efforts to eliminate discrimination. This research and development project found that when employment procedures incorporate scientific methodologies to job-related selection and placement criteria the system is less discriminatory. Identification and improvement of deficient current procedures was a difficult task, not only because of technical complexity, but also because of internal unwillingness to modify long established procedures. Once systematic discrimination was identified, however, and its reality accepted, remedying the situation was found to be within the capabilities of most personnel specialists. The Minority Mobility project concentrated on providing employers with a technique for the identification of discrimination, particularly where non-job related criteria were used as barriers to minority and female employment. The project also found that employers were not clear about civil rights compliance.

The Fernandez study supports the importance of understanding compliance and acting upon it. He found that even though there has been considerable pressure on firms to formulate strong affirmative action programs, very few had specific goals and time tables. None of the firms had developed special or effective procedures to insure that blacks were not discriminated against. When employment test batteries were given in one firm, men had the opportunity to take both the physical and the clerical job batteries, while women would take only the clerical test battery and were not considered for either physical or technical job placement.

A review of the literature on women in the labor market was done by Kreps (58). The two issues most frequently explored are the labor force participation of women and male-female wage differentials. Parnes has summarized the considerable literature on labor force participation (109). Oaxaca (103) focused on the causes of male-female wage differentials. OMRD has a state-of-the-art project underway on women in the labor market.* Results of the National Longitudinal Survey indicate that many young women had altered their plans for what they would like to do at age 35 and planned to work (142). Labor force participation of black and white women is also discussed in another group of studies based on the Survey (158).

Job Redesign

The New Career Systems Institute (100); Granick, Jacobson, and Greaux (44); and Oakridge (102) addressed themselves to job redesign of both entry level and higher skilled positions to provide for rapid promotion and wage increases. These studies was confined to blue-collar and hourly rated jobs. The New Careers Systems Institute concluded that: (1) top management is receptive to upgrading, however, those directly involved in plant operations are not, (2) corporations on their own, will not install upgrading, and, (3) successful demonstration of the benefits to the company did not always lead to adoption of upgrading (44,100). Employers perceived that discipline rather than promotion awards were the best means of solving morale problems.

Upgrading programs are most accepted when there is a labor shortage or where management is faced with civil rights compliance. New Careers (100) also encouraged employers to widen opportunities and to offer senior employees upgrading

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*Patricia Sexton, Women in Work, Center for Community Change, Washington, D.C.

first, so that new hires could be moved into higher skilled jobs. Most employees were not interested in upgrading training since they were already at the wage maximum and they would temporarily lose money by being reclassified. There was a perceived jeopardy in shifting to another job station and the position they occupied was often regarded as "among the best in the plant". The Granick, Jacobson and Greaux (44) study agreed with New Careers (100) that demonstration of the benefits of upgrading did not produce lasting institutional changes.

Recommendations

Planners should assess the probability of promotion for placements and understand the internal labor market of local firms. An understanding of internal rules and the qualifications for promotion permits an assessment of dead-end jobs and the possibilities of promotion. Increasing promotional opportunities must be accompanied by working with firms and unions in altering personnel practices and seniority provisions.

Upgrading will have the greatest success at the skilled, technical and professional level. Programs should focus on firms (demand) rather than solely on the improvement of employee characteristics.

Training will aid entry, but not promotion.

Employers must effect plant operations and daily operating supervisors if they are to engage in successful job redesign.

The food service industry presents stable employment for unskilled workers who begin at entry jobs.

Programs aimed at increasing promotional opportunities for minorities should seek to change the perceptions of white managers toward non-white employees.

Promotional opportunities are greatest where skills and tasks are separated in the work flow.

VII. MOBILITY

Mobility is the movement of workers among firms, oc
tions, or geographic areas. The most recent and compreh
sive review of the literature was conducted by Parnes (1
OMRD sponsored research and development in this area has
addressed almost entirely to geographic mobility. The c
ceptual framework for migration is provided by human cap
theory. Migration is treated as an investment decision
the costs of moving are related to the expected, discoun
benefits expected to be gained from the move.

Mobility Demonstration Projects

Mobility demonstration projects were reviewed by
Fairchild (29), Somers (129), the Mississippi Labor Mobi
project (87), and Ten-Pas (141). These studies tested t
usefulness of publicly subsidized relocation of unemploy
or occasionally employed workers as a means to improving
their economic status as measured by higher wages and
regular employment. These projects also sought to deter
what variables lead to failure or success. This was an
effort to directly intervene in effecting the allocative
efficiency of labor.

From March 1965 to June 1969, thirty-five agencies
conducted sixty-one mobility projects in twenty-eight st
and relocated more than 14.000 workers at a cost of thi
million dollars. The majority of these labor mobility d
stration projects were designed to relocate residents fr
non-metropolitan areas to nearby metropolitan areas or
regional growth centers. The principal difficulty in a
assessment of these mobility demonstration projects is
lack of uniform and complete data on each project (26).
data was not the same and often lead to confusion. The
age relocation allowance payments reflected almost excl
the characteristics of the worker. A criticism voiced
mobility programs is that they may relieve the unemploy
problem for the out-migrant area but may also add to un
ment in the in-migration area by removing a potential j
an unemployment resident. This is especially true unde

Fairchild found that seventy-five percent of thos
located remained in the area to which they had relocate
Most relocations were within the state, and by definiti

relocation placed workers in jobs. Workers moved only on the assurance of work. Earnings also increased. Fairchild recommended support services in addition to assistance in job finding, and a subsidy for moving costs. These supportive services should include preemployment interview trips and information about housing, shopping, schools and churches in the new area. A considerable amount of information was necessary for a good social adjustment by the worke and his family. Fifty percent of the relocatees were marrie The author considered social adjustment as important a facto as monetary support. Some relocatees received a combination of training with their relocation assistance, however, Fairchild (29) could draw no conclusions concerning the rela tive effectiveness of this combination of programs.

The most successful relocatees, as measured by retention, were professional and technical workers or those who possessed skills and a successful employment history. The least successful were disadvantaged residents of a central city relocating to the suburban fringe. Fairchild concluded that for this last group there are a number of barriers to their relocation, which were not solved by the mobility demonstration projects. The mobility projects were conducte by both employment service offices and contractors. E.S. offices were deemed, at first, to have the best source of information on job openings, while contractors had to set up their own contacts. E.S. offices, however, were found to lack the important continuous contact for providing supportive services in the new community. The E.S. in the new community was not set up to provide these supportive services. At the same time, E.S. staff in the home area could not make visits and follow up individuals.

Somers (129) supports many of the conclusions of Fairchild. He found, in an evaluation of mobility projects in Michigan and Wisconsin, that movers improved their employment, occupational and economic status after their move, when compared with a control group of "stayers." Somers also recommended greater emphasis on counseling and supportive services. Particularly important to the relocatees was finding suitable housing. Those who moved possessed greater education, and had more skills or were willing to undergo training (29,129). Movers had a higher educational achievement than non-movers in the Somers study. Both projects concluded that relocation programs should be continued, since the gains from relocation, as measured by increased income, outweighed the costs.

A mobility demonstration project was carried out in the South during 1966-73 in Mississippi, Arkansas and Memphis, Tennessee (87). Sixty-six percent of those screene relocated, and half the relocatees remained in the demand area for six months or more. The likelihood of relocation

and retention increased with the level of education, as in the Fairchild (29) and Somers' (129) studies. The Mississi Labor Mobility project concluded that females were more lik to stay than males, married families were more likely to st and those who relocated because they were unemployed rather than for a better job, were more likely to return home. Th Southern experience was different than the Michigan and Wisconsin studies. In the South a large proportion of the relocatees were willing to move for wages which were not significantly higher than their previous hourly wages. Tho who had no prior labor market experience or were unable to find jobs in their home areas were most likely to relocate and remain in the new area. This may reflect the recent urbanization of the South. The Mississippi project report also recommended more family counseling prior to and after relocation and assistance in finding housing and transporta tion.

The Ten-Pas study (141) supports the feasibility of subsidized relocation. Net personal economic benefits associated with relocation were substantial and were maintained even when relocatees returned to their home areas to work. This study looked at a series of relocation and assistance programs operated through the Northern Michigan Skill Center at Northern Michigan University. The importan of support services is underscored. Success in retaining relocatees was attributed to expansion beyond the mere setting up of interviews for clients. Demand area counselo met new relocatees, arranged temporary housing, offered transportation and answered questions which the client may have had about the new area. Education in this study was positively correlated with staying; about eighty percent of all high school graduates remained in the demand areas for at least one year.

Mangum (73) supported the conclusions of Fairchild (2 Somers (129), the Mississippi project (87) and Ten-Pas (141 He concluded that relocation assistance is, on a small scal a workable and useful tool. Mangum, however, is very pessi mistic about the future of relocation assistance programs under the Comprehensive Employment and Training Act (CETA), for the following reasons: (1) the act does not give ex- press attention to overcoming the geographical separation of unemployed workers and available jobs, (2) balance-of- state prime sponsors may not have jurisdiction over the employment generating metropolitan areas, and (3) local areas will be reluctant to spend locally available manpower funds to provide relocation for people who will then leave the area. Bain (10) presents a similar argument in the funding of manpower programs for professional workers.

A study of migration among American Indians came to different conclusions. Weinstein (170) reported that migration alone, particularly among Navajos, had done little to reduce poverty of the sample of migrants to Denver. The economic success of relocation was a highly complex phenomenon in solving far more than financial assistance and training. Successful economic integration into a new labor mark particularly for culturally distinct groups, is especially sensitive to the nature of initial employment experiences. These experiences effect not only labor market expectations but also patterns of job search, job stability, and on-the-job behavior. As a result of failure to properly account for numerous factors affecting both economic and social integration in the new environment, Indian migrants often do not reach their wage and job-type expectations, and become members of the secondary labor market instead. He concluded that positive, adaptive, initial labor market experiences prior to migration need to be encouraged, not onl to increase the economic success of migrants but also to improve general economic conditions for non-migrant groups. Relocation assistance is also reviewed by Marshall who concluded that the results were mixed (68). He also concluded that a major benefit of relocation for all groups, especial the disadvantaged, was better information about jobs and living conditions in the alternate places to which people might relocate.

Agricultural Migration

The declining demand for agricultural labor, because of increased mechanization, means that there are fewer job for migrant families. Employment for many of these famili will have to come outside of the agricultural migration stream. Miller (85) found that migrants made up only elev percent of the total hired farm labor. Migrant families a require social and economic services during migration. Th include education for the children, housing and counseling Local agencies such as the schools and the employment serv only provide services to permanent residents, and agricultural migrants are not included in their normal clientele. The policy questions associated with agricultural migratio are; How successful is "settling out" of the migration stream? How can migrants receive support services while they are in the migration stream?

A partial answer to these questions is provided by O research. One project was conducted in Texas and nine nor state employment services with four objectives: (1) to de strate that a coordinative network of state employment ser could provide communications for migratory populations, (2) to provide supportive services to migrants during nort migrations and winters in the south, (3) to provide the

opportunity for upward mobility on the part of migrants, and (4) to provide assistance for those who wanted to settle outside the migrant stream. The project attempted to identify migrants in Texas and then to follow them through the migrant stream, providing services at each stop.

The Abt evaluation of this project (1) concluded that the program had substantial difficulty. Following the migrant family was difficult. Records were not passed on and the families were not contacted. Very few families "settled out" and few were placed in non-agricultural jobs. Some agencies and communities resisted providing services to the migrants. Many agencies did not attempt to deal with some of the more easily overcome barriers to settling out such as jobs, housing, community acceptance and school placement. Rural outreach interviewers who were supposed to conduct the initial interviews and find out what services they could offer the migrants were hired very slowly. This was due, in part, to the barriers created by civil service requirements for potential interviewers whose bilingual skills were necessary for the job but proved to be a handicap in passing civil service tests. Local employment service offices were not prepared to engage in or cooperate with outreach work since they were afraid that this would antagonize employers.

However, the project made several important contributions. It: (1) increased the communities' and agencies' awareness of migrant needs, (2) began the process of coordination among agencies that serve the migrants, (3) documented the shortage of necessary services and, (4) demonstrated that project families received more services. The Abt report (2) concluded that some of the major problems facing migrant workers are inherent in the social system. It recommended more training and support for outreach interviewers, a change in the philosophy of the employment service towards outreach techniques, coordination among agencies who deliver services, and encouraging agencies to extend their "limited resources" to the migrant population. Miller (85) also suggested greater rapport with employers.

There are three main migrant streams (20,140). The east coast stream starts in Florida and flows up the coast line to New England. The west coast stream begins in California and flows northward to Washington and Idaho. The midwest stream begins in Texas and fans out over the midwest with Michigan the major receiving state. Cargill and Rossmiller and Stuart underscore the importance of recruitment and planning. Many farmers have not recognized the need to do their own recruiting and feel there is an unlimited supply of workers. They suggest first the building up of farm labor needs by skills, number of days required and tasks needed so that year around work can be provided for seasonal workers

and a better labor market match provided. Stuart suggests that considerable rural and urban migration has been involuntary rather than voluntary. Workers have been dispossessed and pushed off farms rather than attracted by higher industrial wages.

Miller (85) examined one agricultural migrant worker project in the lower Rio Grande Valley of Texas. His report describes the principal labor market institutions as crew leaders, employers, the E.S., and private labor recruiters. Crew leaders are the principal intermediaries while the employment commission is the last resort for both workers and growers. The author also underlines the declining job opportunities for migrant workers and recommends the improvement of labor market information and the encouragement of "settling out." He expects the demand for skilled agricultural labor to increase and the demand for unskilled agricultural labor to decline. Miller (85) and Abt (1) both stress the cultural and educational barriers to migrants settling out and that these barriers are just as significant as economic barriers. Miller found that fifty-one percent of the household heads had less than one year of formal education while seventy-seven percent had not completed the fifth grade. Miller also describes the paternalistic attitude of farm operators toward the workers and their families and a tendency to overrate non-monetary payments to workers.

The alternative to the encouragement of migration is the placement of new industry in rural areas. This is a much debated issue. Twetin reports in Moser (91) that new industry provides additional real output of goods and services in rural locations. Because of rural underemployment and lack of mobility, labor can be utilized at low real costs in new rural growth centers. Somers (91) and Marshall (91), on the other hand, take the position that when new, high wage firms are established in depressed areas to provide new jobs, they are likely to draw the best workers from the local population and surrounding areas. This bypasses the chronically unemployed and disadvantaged in local areas. In the South companies that build new plants are likely to place them in predominantly white counties. Till (145) concludes that at a second stage of development the labor force, accustomed to factory routine, will be able to supply new higher-skill firms further disadvantaging the pool. Lower wage firms however, may now be forced by market pressures to hire the pool and more blacks.

Another device for farm labor placement is the annual worker's plan which attempts to extend the work year of the migrant farm worker (85). Migrants register with the E.S. and list their itinerary for the coming season. The E.S. attempts to fill in idle periods from orders received from farm employers.

Another device for aiding farm employment is the establishment of a farm job ladder. The concept of the farm job ladder is that employment and workers skills can be improved by the redesign of farm jobs so that there is a differentiation of skill levels and the possibility of training and promotion. The Rural Economics Institute (118) of the Social Development Corporation analyzed jobs on six California farms in order to determine the rationale for specific practices, the methods used to hire, train, and promote workers, and the season-to-season employment pattern. The principal objective of this demonstration project was to provide structure for rural farm jobs which could lead to improved skills and advancement.

Researchers at the Center for the Study of Human Resources at the University of Texas, Austin, have produced a series of studies of the labor market in the South, with particular attention to rural and Negro employment (77,115, 124). These studies concluded that: (1) although Negroes made some occupational progress in the 1960's, blacks are heavily concentrated in low paying jobs in all sectors, including the high paying sectors and the growth industries, (2) remedial programs in Houston and Memphis, did little to alter the Negro's occupational position, (3) the greatest gains for blacks were in the service sector, principally government, and even here they were concentrated in the low paying laborer and service occupations, (4) blacks had considerable difficulty attaining apprenticeship and journeymen status, (5) blacks are excluded from the job information networks that provide information about high paying jobs, such as employee referrals, employment agencies and the placement offices of primarily white colleges.

The studies cited found that nonfarm industry tends to avoid counties heavily populated by blacks in favor of those which are predominantly white. Black areas were avoided by the higher paying durable goods sector but were getting their fair share of the lower paying non-durable goods sector. Rittenoure (115) does not expect revenue sharing to solve labor market problems. Local rural governments often do not place priorities on human resource needs. Labor market programs will most likely be devoted to the most highly qualified, "mainstream", applicants who have a voice in the political process without any performance criteria set from the state level.

If manpower policy is to continue to effect geographic mobility, and there are considerable doubts that it will because of the prescriptions of CETA, Hathaway's advice is important (90). He states that rural workers lack extensive experience with impersonal bureaucratic social service organizations and depend heavily on family and friendship ties for information and help.

Recommendations

Relocation programs should be accompanied by a combination of related services which assist social adjustment in the new community. Agencies that can follow or move with relocatees can best provide these supportive services.

Relocation programs on a small scale are workable and are to be encouraged. The gains from relocation as measured by increased income, outweighed the costs.

The following characteristics will favorably predict success in staying at the new location: female, married families, high educational attainment, no prior labor market experience, and a clear lack of work opportunities in home community.

A successful initial employment experience in the new area and adjustment and integration into the new community is essential for relocation.

Practitioners in rural areas and balance-of-state should implement programs that provide non-farm jobs and job information since there are fewer full-time farm jobs.

Migrant workers programs should emphasize supportive social services for migrants as they move. Increase the awareness of migrant needs among employers, communities and agencies.

Extend the job ladder concept to rural areas. Encourage the building-up of skills so that farm work has a progression to it.

VIII. CONCLUSIONS

The preparation of this report during a period of unusually high unemployment rates served to give the report a dynamic context. Job opportunities come first under such circumstances while some of the recommendations advanced in this report may be characterized as fine tuning the labor market.

OMRD sponsored research and development has concentrated an important share of its efforts on the labor market activities of the disadvantaged whose unemployment rates have consistently exceeded the national average. The conclusions from the literature are appropriate to all phases of economic growth.

Support for research and development in labor market analysis has often been ad hoc without any discernable overview or plan. This approach has the advantage of a support program that can respond quickly to changing events in the labor market. There are some benefits from the encouragement of a limited number of extensive studies that concentrate on a particular aspect of the labor market. These studies have resulted in the development of particular expertise.

Grantees and contractors should be required to become aware of previous and current findings that are appropriate to their activities and, wherever possible, present a continuity with other findings in their own reports.

Two issues are singled out for a final comment. First, is the impact of civil rights legislation and equal employment opportunity compliance on labor markets. A considerable portion of the literature reviewed was based on data obtained either before or at the outset of this legislation. It is important to obtain and review more recent evidence, when it becomes available, concerned with search, selection, placement and promotion since passage of the legislation. Second, is the impact and role of the Comprehensive Employment and Training Act on labor market activities. Local manpower practitioner and CETA prime sponsors now possess responsibility for a considerable proportion of the governments labor market efforts. The full impact and interaction of these agencies with all the labor market activities discussed in this report cannot yet be assessed. This report has sought to frame its conclusions for their relevance to future local requirements.

There is no doubt that CETA presents a strong challenge. Researchers and experimentors need to present the implications of their findings to practitioners. Practitioners need to address themselves to the labor market problems of all groups, particularly those who do not possess the political power to be heard at the local level.

APPENDIX

SHORT SUMMARY OF MAJOR PUBLISHED SOURCES
OF LABOR MARKET INFORMATION*

National Science Foundation (NSF)

American Science Manpower - This was published biannually by NSF, and is based on a mail survey conducted by the same organization. The publication relates detailed characteristics employment and earnings for American scientists. The most recent year available is 1970.

Employment of Scientists and Engineers in the U.S. - This was a one-time study done by NSF and the Bureau of Labor Statistics to establish historical series for employment of scientists and engineers. Appendix D of this publication is an excellent bibliography of data sources for employment of scientists and engineers.

Equal Employment Opportunities Commission (EEO)

EEO Report #2 Job Patterns for Minorities and Women In Private Industry Vol. 1 - This is published irregularly by EEO based on the EEO-1 form submitted by employers. Volume One gives employment of minority groups and women, for the nation and for the individual states. The most recent publication has data for 1970.

EEO Report Vol. 2 - This is the same as above except that it has the data for individual SMSA's in the United States.

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*Adopted from Arthur R. Schwartz and Malcolm S. Cohen, On The Feasibility Of A Labor Market Information System, Vol. 3, Institute of Labor and Industrial Relations, University of Michigan-Wayne State University, Ann Arbor, 1974 and Bruce McKinlay, Developing A Career Information System, Oregon Career Information System, Eugene, 1974.

Bureau of Labor Statistics (BLS)

Industry Wage Surveys - These are published irregularly for the various industries on the following page in three to five year cycles. They contain primarily industry wage data. The most recent surveys have data for 1972. The reports are based on personal interviews.

Employment and Earnings and the Monthly Report on the Labor Force - This is a monthly publication of BLS relating characteristics of the labor force, employment and unemployment, and earnings on a monthly basis. It draws from the Current Population Survey (CPS), BLS 790 data (Monthly Report on Employment Payroll and Hours), and BLS 1219 (Job Openings and Labor Turnover) as its primary sources.

Union Wage Reports (i.e. Union Wages and Hours in the ____ industry) - The publications for the various industries are usually released annually based on a mail survey of union leaders for selected building and printing trades, local transit and local trucking in 68 cities with a population of 100,000 or more. These reports relate wage and fringe information and changes in wage situations with some historical detail. There is usually detailed city, and if relevant, trade detail. The most recent publications are based on data from 1972.

National Survey of Professional, Administrative, Technical and Clerical Pay - This publication provides nationwide salary averages and distribution for 80 work level categories covering 12 broad occupational groups. It is an annual publication based on a yearly survey covering mostly white collar workers. The most recent year has data for 1972.

The Handbook of Labor Statistics - This is an annual publication of BLS which relates employment, unemployment, earnings, and the general characteristics of the labor force. It is a summary of many of the BLS works, and uses such files as the CPS, Urban Employment Survey, BLS 790, BLS (or DL) 1219, industry and union wage surveys as well as information about prices and productivity. The most current edition is dated 1973, with data for 1972.

Area wage surveys - These publications report wage scales and wage movements for manufacturing and selected non-manufacturing industries in the selected SMSA's. These studies are done for 90 different labor market areas, usually at two year intervals for each SMSA. The most recent releases are for 1972.

Employment and Earnings Statistics for the United States - BLS issues this bulletin annually, and it summarizes

employment and earnings data on a national basis. It gives earnings and hours data for production workers only. It has historical series for most of its data with the most recent release being for 1909-1972. However, most historical series do not go much further back than 1939.

Employment and Earnings States and Areas - This has much the same data as above except that it has data recorded separately for states and 210 separate areas (cities, SMSA's and for the individual boroughs of New York). Most of the historical data goes back only 20 years, although the most recent title is for 1939-1972.

Occupational Employment Statistics 1960-1970 - This is the latest in a series of BLS publications on occupational employment statistics. The first two (BLS report #305 and bulletin #1579) provide statistics for 1947-1966. This series is updated irregularly with the latest information being for 1970.

Scientific and Technical Personnel in Industry 1961-1969 - This report looks primarily at employment of scientific and technical personnel in private industry. It is the result of a mail survey that is conducted irregularly.

Tomorrow's Manpower Needs Vol. IV - "The National Industry-Occupational Matrix and Other Manpower Data" - This gives percentage figures or industry employment by occupation and occupational distribution by industry for 1960, and projected for 1975. The 1960 figures are based primarily on census data.

The Monthly Labor Review - This is a monthly publication, which in addition to carrying articles relevant to labor has a section entitled "current labor statistics", which contains household and payroll data on employment and earnings plus data on prices, productivity and work stoppages.

Indices of Output Per Manhour - Selected Industries 1939 & 1947-1972 - This publication develops a historical series for output per manhour for different mining and manufacturing industries, as well as rail and air transportation, and gas and electric utilities industries. This type of publication has been put out irregularly in the past.

Occupational Outlook Handbook 1974-75 edition - This is published every other year. It was first released in 1949 and has been revised several times. There is no statistical information in this publication, but it is a comprehensive volume examining different occupations, the nature of the work, training, employment outlook, and sources of other information.

Occupational Manpower and Training Needs - (BLS Bulletin #1701) - This publication provides data on 1968 employment and projected 1980 requirements for selected occupations. When possible available training data is provided for each occupation.

The Manpower Administration (MA)

Area Trends in Employment and Unemployment - This is a monthly publication that details data on numbers in the work force, employment, and unemployment. As well, it singles out areas that have been hit by especially high unemployment rates.

Manpower Report of the President - This is an annual publication, and is an excellent collection of manpower information. It is two-thirds qualitative in nature, but it does have a detailed statistical section dealing with employment, unemployment, CPS data, and hours and earnings data for the nation and individual states and areas. It also has tables dealing with Manpower Development Training Act participants, and some dealing with vocational education programs.

Dictionary of Occupation Titles - This is the 1965 or third edition of this basic source book for all counselors. The first edition came out in 1939 and the second in 1949. Volume I contains an alphabetical listing of occupations and descriptions. Volume II contains occupational categories, occupational group arrangement of titles and codes, worker trait arrangements of titles and codes, and an industry arrangement of titles as the main entries. There is a 1966 supplement.

Office of Bureau Economics (OBE)

Business Statistics - 1973 - This is put out biannually by OBE as a supplement to the Survey of Current Business, a monthly publication of the same office. There is one section of this entitled "Labor Force, Employment, and Earnings". This section has historical data usually dating back to 1939 on most items. There is a section detailing the source materials for each table.

There eight volumes of Growth Patterns in Employment by County, 1940-1950 and 1950-1960. These eight volumes deal with employment and changes in employment for the counties and States of the eight major regions of the United States as derived from the Census of Population. The change in employment for each county is shown with the amount by which it exceeds or falls short of the national average separated into industrial mix and regional share components. The influence

of each of 32 industries on these employment changes is statistically detailed.

Bureau of the Census

Census of Government - Compendum of Public Employmen This is compiled every five years, with the latest edition being 1972. It has detailed data on employees and payroll of federal, state, and local governments. It includes ave monthly earnings of full-time employees.

City Employment in 1972 (of governments) (Sample Emp ment Data) - This has full-time employment, average full-t earnings, on a monthly basis for metropolitan areas as a whole. The latest year available is 1970.

Public Employment in 1972 (Sample Employment Data) - This contains public employment and payrolls of federal, s and local governments by function for each respective gove ment. It has average earnings for state full-time employe as well as some state and local detail.

Major Retail Centers in SMSA's - Census of Business- Retail Trade - This is compiled every five years by the Census Bureau. It has payroll information for the entire year, and numbers of paid employees for the week including March 12, by kind of business in the central business dist It has state, SMSA, city and central business district det for cities over 100,000 in population. The most recent re lease is for 1972.

Selected Services-Area Statistics-Census of Business Services - This is done every five years with the most rec being 1972. It has payroll information for the year, and paid employees for the week of March 12 (of 1966), by kind business. It has state, SMSA, county and city detail.

Wholesale Trade-Area Statistics-Census of Business- Wholesale Trade - This information is also gathered every five years, with the most recent release being 1972. It h payroll data for 1971 and the first quarter of 1972, givin paid employees for the week of March 12, with state, SMSA, county, and city detail.

Census of Manufacturing-Area Statistics - This publi tion contains employment with industry detail, as well as aggregate manhours and wages for industries and areas.

The Decennial Census of the Population - This is the largest source of information on the population that one c find. Unfortunately, this information is only collected

every ten years. In the Census are detailed demographic characteristics of the population as well as detailed wage and employment data. Any brief description would not do it justice. It should be consulted by all users of labor market information.

County and City Data Book, 1972 - This publication contains over 1000 pages of tables containing hundreds of data items on each county, SMSA, urbanized areas, unincorporated places of 25,000 or more, and cities of 25,000 or more population.

County Business Patterns - This annual report contains information on employment and payrolls by industry within counties, SMSA's and large cities.

U. S. Civil Service Commission

Current Federal Workforce Data - This is published biannually with the latest release being in January, 1970 based on the June, 1968 data. It is based on a 10% work history sample. It contains employment data for six month periods ending with December, 1967 and June, 1968. It covers a selected sample of 154 federal white collar occupations, representing about 95% of the total federal white collar workforce.

Federal Civilian Employment in the U.S. by Geographic Area - This is an annual publication. It contains employment by state, county, pay system, and selected agency, as well as SMSA detail.

Federal Workforce Outlook - This is in a series of annual publications that looks at projected federal workforce figures for a four year period. It has projected federal employment by occupation for 154 occupational series, which represents 95% of the total federal white collar workforce. The most recent report was issued in early 1974.

Office of Education (OE)

Digest of Educational Statistics - This is an annual publication of OE, which serves as an abstract of educational information. It is divided into five chapters: 1) All levels of education 2) Elementary and secondary education 3) Higher education 4) Federal programs of education, and 5) Selected statistics related to education. It deals with enrollment, teachers, income of schools, and of graduates of certain levels of education, and a multitude of other statistics. Two particularly interesting tables are Table 10, which

presents occupations of employed persons by the level of school completed, sex and color, and Table 16, which present total annual money income by years of school completed, sex, and age for persons over 25. The most recent year is 1973.

Vocational and Technical Education-Annual Report - Thi is the primary statistical work on vocational education. It is put out annually, and is based on the state reports received at the national offices. Most of the reporting is given with detail by state. The most recent report is for fiscal 1972.

Education and Training-A Chance to Advance - This repo is put out annually by OE and HEW as a review of the year's activity under the Manpower Development And Training Act (MD It is primarily qualitative in content, but it has a large statistical section with characteristics of the trainees, la force status of those completing the program and some data types of MDTA programs enrolled in. The most recent edition is for 1972.

Projections of Educational Statistics to 1972-83 - Thi is one in a series of publications that relates historical summary data for the ten previous years, and projections for the next ten years. It details enrollment, teachers, gradua and expenditures for elementary, secondary, and higher educa tion institutions. The most recent one was released in 197 This is compiled by the National Center for Educationsl Sta tics (NCES).

Students Enrolled for Advanced Degrees-Summary Data - This is an annual publication of OE based on a mail survey of universities. This part gives the enrollment in various courses for the whole country and enrollment by institution for all responding colleges. (This is for M.A. and Ph.D. candidates). The most recent release is for fall, 1970 (NCES).

Students Enrolled for Advanced Degrees-Institutional Data - This is much the same as the above, except that it d course enrollment for each university, as well as having se and level of study detail.

Advance Statistics on Opening Fall Enrollment in High Education-Basic Information - This survey is carried out by mail questionnaire and lists higher education enrollment fo each state for public and private institution by sex and student status. The most recent release is for fall, 1971 (NCES).

Directory-Public and Nonpublic Elementary and Seconda Day Schools Vols. I-V - This study is done by mail survey,

contains data for 1968-9. The first volumes have information pertaining to public schools, one volume for each region of the country (i.e. Southwest), and a fifth volume for nonpublic schools. It contains enrollment data, numbers of teachers and number of graduates for 1968-9 for each reporting school.

Earned Degrees Conferred-Part A - This is an annual publication. It lists graduates by level, school, sex, and has some aggregate data by state on individual fields of graduates. The latest edition covers 1970-1971 (NCES).

Earned Degrees Conferred-Part B - This is much the same as 8.9 except that it presents the information for each individual school. For example, one can find how many M.A. degrees were conferred at a certain university in any of the listed fields.

Subject Offerings and Enrollments in Public Secondary Schools - This was a one time study done for the school year of 1961. There are hopes of a similar study in the future, perhaps in the next two years. It was based on a mail survey of 50% of the secondary schools in the United States. The main section lists, by state, the number of schools offering a particular course, and enrollment in each course including vocational education (NCES).

Preliminary Statistics of State School Systems - This is an annual publication that lists enrollment, instructors, expenditures, graduates, and money receipts from the government for each particular state (NCES).

Directory Public Schools in Large Districts With Enrollment and Staff by Race - This was a one time study done by mail survey for fall, 1967. The sample consisted of 10% of the schools in the country, which contained 70% of total enrollment. It presents enrollment and instructional staff by race for each school district. There are state and city names by each school district, so the data could be aggregated by state and city if the reader so desired (NCES).

Vocational Education and Occupations - This was put out in 1969 by OE to relate DOT occupation codes to types of vocational education programs. It is a reversible index. That is, it has DOT listings to vocational education programs in one section, and vocational education program to DOT code in the other.

Other Sources

Economic Report of the President and the Annual Report of the Council of Economic Advisors - This is put out

annually by the federal government. The final section is a collection of statistical series. The general categories are: 1) National Income and Expenditure, 2) Population, employment, wages, and productivity, 3) Production and business activity, 4) Prices, 5) Money stock, credit, and finance, 6) Government finance, 7) Corporate profits and finance, 8) Agriculture, and 9) International Statistics.

OBERS Projections, Regional Economic Activity in the U.S. - U.S. Water Resources Council. Volume I - Concepts, Volume II - OEA Economic Areas, Volumes III, IV - Water Resources Regions, Volume V - States - The volume projects employment and earnings from 1980 to 2020 with selected data for 1950, 1954, 1962, and 1969.

Guidepost, American Personnel and Guidance Association. This is a bi-weekly newsletter.

The College Handbook, College Entrance Examining Board. It was last published in 1972 in two volumes.

Barron's Profiles of Colleges, Barron's Educational Series, Inc., published annually.

Health Resources Statistics, National Center for Health Statistics, HEW. Annually published descriptions and tables.

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